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ART. CLXXXV.—*An Address delivered before the New-York Horticultural Society, at the Anniversary, September 7th, by* ABRAHAM HALSEY, *Corresponding Secretary of the Society.*

MR. PRESIDENT, and
Gentlemen of the Society:

Another Anniversary returns to us under circumstances of the highest interest. Our society finds itself in the full tide of prosperity, zealously and successfully pursuing its object, increasing in the numbers of its associates, and we may trust, diffusing in an equal degree, the spirit which actuates us in our endeavors to improve the useful and delightful science to which we have devoted ourselves. Our correspondence with scientific associations of foreign countries for the promotion of our object, has been continued and extended to others recently instituted abroad, as well as in our sister states, and we have endeavoured to cherish and reciprocate the liberal spirit which, in the interchange of mutual improvements, connects in friendship the most enlightened nations. To these subjects of peculiar interest to ourselves we may add the most cheering incident in our horticultural annals, that the bounties of our climate have been extended to us in the past season in their fullest influence. A late spring, the usual harbinger of a plentiful autumn, seasonable rains, and the continuance of regular summer heats, have conspired to crown with abundance the labors of the gardener. Our weekly exhibitions have been graced with the choicest productions, in their season, and our annual festive show is before us in all its profusion and luxuriance. These are gratifying evidences of the merits of our cultivators, and of the skill with which the capabilities of our soil are applied to the most useful ends; but there is another view of them, not less gratifying to us, as citizens and philanthropists. These delicious productions are incidents of our national felicity, not the laboured triumphs of art over an ungrateful clime, but the cheap and almost voluntary growth of our open grounds, matured by the same sun who sheds his genial influence on every citizen of our happy country.

In addressing you at this period, I feel the difficulties of the task I have undertaken. We have been favored on former occasions with the effusions of members, not less distinguished for the elegance with which the pleasures of our art have been celebrated, than for the scientific skill with which its principles and practice have been unfolded. I should have little hope of success in entering on the same ground. I have only to request your attention to a few considerations on the state and prospects of gardening among us at the present time.

Our country may boast, perhaps, with greater propriety, of the advances we have made in the useful arts, than of our progress in those which are connected with the luxury and refinement of society. Our national horticulture is influenced here, as well as in other countries, perhaps, by the peculiarities of the climate, and the character, habits, and moral condition of our people. The perfection of it is the slow growth and gradual accumulation of ages of experience. Our country is but recently beginning the career of refinement. Three centuries have been insufficient to subdue the powerful vegetation which covered our continent with forests, and still obstructs the course of the settler. Populous cities and cultivated fields, indeed, cover spots which were the abode of the savage and wild beast of recent years; but the broad lines of improvement only are traced over our land. Thousands of acres yet remain to exercise the untiring labors of the emigrant. Our populace are thinly scattered over immense tracts of half cultivated soil. The farms, as we name those sections, which in other countries would be lordships and principalities, receive a stinted cultivation; and our agriculture languishes under the abundance of its space and the paucity of its laborers. Gardening, which is but a refined and concentrated branch of agriculture, must be sought for in the neighborhood of our populous towns, protected and supported by our citizens. In these situations, it is controlled by the habits of our busy countrymen, who are not yet formed to the quiescent enjoyment of any species of refinement. The citizen of our country is born to take a part in the busy scenes of active life, and the laborious avocations by which our society is generally distinguished. He is the artificer of his own fortune, and the principal part of his life is employed in acquiring, and but a small portion in enjoying. The various pursuits of commerce and manufactures, and their dependant concerns, the usual sources of profit or utility, are too engrossing to leave room for the elegancies and embellishments of life. Our horticulture thus partakes of the general character of our other institutions; it must be useful in its objects, and must apply itself to the wants and demands of a sober minded and laborious people.

Add to this cause of mediocrity in our luxurious arts, the equalizing tenor of our laws, under the control of which, the possession of landed property is made to follow the vicissitudes in the fortunes of its owner, and comes to be distributed, at his death, like his other effects, equally among his descendants; the garden which the taste of an ancestor may have established, after a course of years comes to be divided among a numerous race, perhaps, of heirs differing in their views and taste from its original owner. From this cause, we have no hereditary gardens, where our national taste might be gradually formed, and in which our progress in horticulture might be distinctly indicated. We must therefore search for its evidence, where the citizen of a free country would ever wish to seek for the luxuries and enjoyments of his countrymen,

diffused among the mass of the people, accessible to all classes and conditions, and differing in its occasional superiority only from the greater degree of attention which may have been devoted to it.

Our favorable position for commercial intercourse with climates more congenial than ours to the growth of certain vegetable luxuries, is another circumstance which operates upon our horticultural character. The fruits of the tropic, those at least, which can be removed, are brought to our shores in all their perfection, and with as much facility as the productions of our sister states. The orange, which is a favourite object of culture in Europe, requires artificial protection, and conservatories expressly are built for it, excepting in a very limited district, in Italy, where it sustains the open air. The pine apple, whose luscious fruit places it foremost on the list of table luxuries, is cultivated in the costly pineries of those countries for the wealthy and the nobles of the land. Both of these luxurious articles are as common with us, almost, as our most ordinary fruit, and little inducement would be offered for our gardeners to raise them artificially, with much cost and labor, when they can be procured so cheaply from their own climates. We, indeed, frequently meet with the plants among the ornaments of our conservatories, but they are cultivated more for the beauty of their vegetation, than for the sake of the fruit.

The nature of our climate, of course, exercises an important control over the character of our horticulture. Perhaps if our advantages, in this respect, had been of a less bountiful character, the evidences of our improvements in gardening would have approached more nearly the standard of Europe. If the vegetable delicacies which are there considered as luxuries, but which are scarcely ranked in that class in our country, from their profusion and facility of procurement, had been as difficult to be raised in our climate as they are in that country, we should, perhaps, have employed the same means to obtain a supply as are resorted to there. We might then have had a style of gardening resembling theirs, as the enterprize of our gardeners would have introduced the same system of forcing. But when the products of our gardens, which we consider as evidences of our skill in this science, are compared with those of other countries whose horticulture is acknowledged to have reached a high degree of perfection, it is necessary to consider the simplicity of the means employed to obtain them, and to contrast these with the elaborate and costly contrivances by which effects of the same degree of excellence are produced in other countries. The delicacies with which our markets and confectionaries are so profusely supplied, are the offsprings of our natural soil, under the influence of our vivid sun, and connected, therefore, with the common husbandry of the land; while the same products, in those countries, are obtained by wealth and power, contending against natural disadvantages, and consequently, they are to be considered as belonging exclusively to the upper ranks of society.

Under the controlling causes which have been indicated, our horticultural catalogue embraces a variety of the choicest treasures of the vegetable world, which have ever been brought under human cultivation. The delicious *melon*, in all its varieties, ripens in its full flavor and delicacy, without protection, and is the common inhabitant of our cottage and farm-house gardens. The delicate *strawberry* is a native fruit which yields, in its wild state, a dessert of the most delightful flavor, and increases to a most luxuriant size, when cultivated; some of the most valuable varieties of Europe were obtained from the species which are common over our whole territory. The various kinds of *berries* which are most esteemed for their productiveness, or other merits, to entitle them to a place in the garden, succeed with us in all their excellence. The *cherry* in no wise degenerates from its ancestors of Europe, and ripens without any management. The *plum* is one of our most abundant fruits, and so congenial is our climate to its growth, that new varieties yearly present themselves to us, apparently springing up spontaneously. The *apricot* and *nectarine*, under the full influence of our powerful sun, present their delicious crops, and repay, more than any other of our fruits, the additional trouble of training. The *peach* is one of our commonest orchard crops. For many years after its first introduction, this fruit sustained the vicissitudes of our climate as if it had been indigenous to it. It produced in abundance, and in the highest state of perfection, wherever it was planted, and furnished our tables with one of the most delicious desserts. Its juice was distilled into cordials, and it even, from its commonness, became an article of food for domestic animals of the poultry and barnyard. Within a few years, however, the former plenty of the peach has received a check, a gradual deterioration has been observed in its quality, and at length a mortality has prevailed which threatens their entire extermination. No perceptible cause appears to be assignable to this disease, from any change in our climate, nor from any difference in its mode of culture. An opinion is prevalent, that the failure of the tree is occasioned by the attacks of insects, yet it can hardly be supposed that this cause is of sufficient extent to account for the evil, since the insect race are not more numerous or more destructive now, than they were at the period of its greatest fertility.

Without attempting to decide upon the influence of any single cause as sufficient to occasion a loss, so much to be deplored, it is gratifying to perceive that the enquiry has led to the adoption of means for its restoration, which promise to be successful. One of those means obviously is, to renovate the stock from seed, instead of continuing the older varieties by grafts, and by planting them in a new soil, where they can obtain the most nutriment. Another means not less effectual of restoring the peach to its former place in our orchards, is, by importing new kinds from its original country, or from those places where it flourishes with the greatest vigor.

Connected with the state of our horticulture, and as a subject of the highest interest in its bearing on the moral habits of our people, the experiments which are now making in the acclimation of the *grape* may be mentioned. As a luxury of the table, the vine is easily cultivated, and yields with certainty when protected by the walls and enclosures of our city and its suburbs. From this success hopes are entertained that our climate will be found propitious to the production of the grape, for the purpose of making wine. An object of this kind, so important to every one who wishes to promote the comfort and temperate enjoyment of our countrymen, and afford a new resource of national industry, should lead us to encourage every effort to

accomplish so desirable a purpose, and to seek for the most rational and scientific means of directing experiments to insure their success. Good policy, on the other hand, forbids that we should conceal the obstacles to be surmounted, or to encourage fallacious hopes. Congenial as our soil undoubtedly is, to most of the valuable fruits of the garden and orchard, it is equally certain that it is not alike adapted to all. The capricious nature of our climate, and sudden variations in its temperature, are entirely hostile to the wine-bearing grape, of the mild and equable seasons of southern Europe, and hence, it is natural to anticipate a failure in any experiments made with the vine from those districts. If success shall ever crown our efforts, it must be by the gradual amelioration of the inferior quality of the vine which thrives in European sections more nearly resembling our own. By raising different sorts from seed, in repeated succession, they may be gradually inured to sustain the rigours of our winter and spring. By means of grafts, and the proper intermixture of indigenous kinds with foreign varieties, new and improved sorts may be procured, which may finally lead to the desired object in obtaining the qualities proper for the vineyard. A method of this kind has already been productive of several valuable additions to the stock of our cultivated grape. The various species of our wild grape are found in their natural state, under circumstances so peculiar as to lead to the belief that they undergo this process of intermixture with each other, and the hybrids, thus produced, occasionally offer an improvement of much interest. The Bland, Catawba, and Isabella grape of our gardens were probably accidental varieties, produced in this manner, since it is difficult otherwise to account for their origin.*

Of all our highly prized fruits, the most interesting, and if its usefulness be the test of its value, the most important, is our *apple*. Closely associated with our wants and enjoyments, the apple deserves the front rank in the catalogue of our vegetable treasures. It graces our tables and social entertainments with its fragrance and beautiful form, refreshes the invalid and strengthens the healthy with is nutricious juices, and serves its turn as a condiment, conserve, or rich esculent. It arrives at maturity among us early, and continues in all its delicacy for the greater part of the year. To these solid merits, it adds the invaluable beverage extracted from its pulp,—the savory and nutritious *cider*. The apple is in truth the diamond of our vegetable gems, the rose of our fruit, and the wheat of our orchards. It is adapted to every section of our land, yielding every where in the greatest exuberance, and requiring the least space and attention for its culture. It is one of our oldest species of fruit, and has become completely naturalized to our soil. Scarce a farm of any long existence is found, but contains in its orchard some peculiar variety of this noble fruit. Of the countless sorts which our nurseries contain, there are some which seem to have attained a degree of excellence in which it appears vain to hope for improvement. Yet, as the apple is required for two distinct purposes, as a table conserve, and for cider, further experiments are required to enlarge the stock of those we possess for the latter object. The apple orchard is, in truth, the vineyard of our country; and the delicious beverage which can be obtained from it is superior to many kinds of wine which is brought from abroad, and inferior to none in its nourishing and refreshing properties. To perfect the mode of its manufacture, and to supply new materials to its flavor and good qualities, may be said to be an object of national importance, and worthy the attention of every patriotic horticulturist.

The *white mulberry*, of Persia, yields to cultivation, generally, throughout our union, and becomes a highly interesting object in the hands of our cultivators, from its subservience to the important manufacture of silk. Its fruit is insipid, and of too little consequence to render it an object of our gardens. Its chief excellence resides in its leaf, which, from its tenderness and succulence, is preferred by the silk worm. Two species are indigenous to our country, but neither of them calculated to supersede the use of the white variety. Within the past year another species has been imported from China, which, from its superiority, in several respects, over the white mulberry, will form a valuable addition to the means of facilitating the production of silk. To the liberality of the Horticultural Society of Paris we are indebted for specimens of this valuable plant, which, under the management of a member of our Society,* distinguished for his efforts to promote the culture of the silk worm, vegetates luxuriantly, and promises to become a permanent resident of our soil.

It would be easy to enumerate many other sorts of fruits which would flourish in our fine open grounds, and abundantly repay the pains of cultivation, but enough has been noticed to prove that the culture of the best kinds of exotic fruits has received a share of attention proportioned to their importance, and their capacity for general use. As a means of increasing the catalogue of our vegetable varieties, our attention may be directed to many kinds of indigenous fruit, which are scattered by the hand of nature in our woods and mountains, and other unreclaimed habitations. They would furnish important materials for obtaining meliorated varieties from the same kinds which are under cultivation. Of many sorts of our wild fruits the original supply will be cut off in a few years, by the rapid progress of settlement and clearance in our new lands. We have no artificial forests to replenish our stock of timber trees, which is fast disappearing, and our *walnuts* and *hickories* are too valuable for their wood to be retained for their fruit. Eventually, then, they will have to be cultivated, to prevent their total extermination, and their productiveness in the garden would abundantly repay the care bestowed on them. The same may be asserted with respect to our *chesnut* and *hazlenut*, which, though inferior in their size to the filbert and chesnut of Europe, are fully equal to them in flavor. The smaller kind of chesnut or *chinquapin*, is a delicate fruit, of the highest interest; and that it is susceptible of great improvement, is proved by the success of an experiment to which it was subjected by a member of our Society.† The flowers were intermingled with those of the large Spanish Chesnut, and a hybrid was produced, partaking of the qualities of both kinds, and superior, in some respects to either. Several species of our native *plum* are

* As a general principle, this natural hybridation is at variance with the laws of animal as well as vegetable physiology; but there seems to be sufficient reason for believing that it is not impossible, with respect to diœcious plants, as our wild vines are.

* Dr. Pascalis. † Mr. Wm. Prince.

worthy of attention from our horticulturists. The *chicasa* variety possesses qualities sufficient to warrant more extensive attempts to improve it. The maratime or *beach plum*, which is found along the sands of our coasts, is a well flavored fruit, as well as the sand cherry, of the same locality, and both of these would deserve to be made the subject of experiments to meliorate them. The wild yellow plum* is a highly excellent fruit, even in its wild state, and is very greatly improved by culture in the sweetness and luscious flavor of its pulp.

The wild apple or sweet scented *crab*, of this country, is not less remarkable for the beautiful form of its fruit than for its pleasant acidity, which renders it so valuable for the purpose of confectionary, and is, in all respects, a vegetable of greater promise than the European crab, which is the stock from whence the cultivated apple is derived.

Many other kinds of our wild fruit might be designated as new sources from whence additional varieties of our choicest sorts might be obtained. Our currants and gooseberries, and the common though delicious blackberry, are particularly deserving of notice, and the wild cherry, whose beautiful flower and agreeable berry would entitle it to its rank among horticultural ornaments.

The branch of our horticulture which is professedly ornamental may be reported to be in a progressive state; many degrees, however, behind what it will arrive at, under the skill and enterprize of our gardeners. Our gardens are decorated with the choicest beauties of other climates, and but few of those sorts which are most esteemed in horticultural countries refuse their blossoms to the exposure of our open borders.

But, shall I be permitted to state a defect in this department of our art which is little creditable to our national taste? The ornaments which are usually preferred among us are of exotic origin, while we overlook our native beauties until they are brought to our notice by the adoption of those nations with whom our horticultural intercourse is most frequent. The cultivators of Europe are fully aware of the merits of our commonest plants, and they are eagerly sought for, to gratify the taste of the most polished capitals of that continent. France, England, and Germany especially, have rendered our country largely tributary to the embellishments of their gardens, and even at this day their emissaries are actively searching every part of our continent for new varieties for the green house and parterre. Our sister society of London has of late years contributed very extensively to the list of European exotics, in the productions of our rocky mountains, and north-western districts. It is not uncommon for us to receive from foreign hands, among the most highly prized beauties, the common and spontaneous generation of our own wilds. Yet it surely is derogatory to our character for scientific enterprize, thus to seek beyond the Atlantic for embellishments which are scattered around us by nature's own hand. Our Flora comprises every species of excellence to recommend it to the horticulturist—flowers of the most varied figures, lively colours, and delicious odour. Our forest trees are equally remarkable for the useful qualities of their wood, and the fruit which some of them produce, and for the rich flowers with which they are adorned. Our noble *tulip* tree with its stately form, over tops its sylvan brethren, and delights the eye with its singular leaf and luxuriant blossom. Our star-leafed *liquid amber*, our delicate *locust* and *acacia* whose graceful foliage waves with every breath of air, our noble *maples* and *oaks*, and the picturesque American *elm*, are subjects of admiration to every lover of the beauties of landscape scenery. Our public walks and parks would be more appropriately decorated with these indigenous splendors, than with the common and stinted exotics, which equally offend the eye and reproach the taste of our citizens. No shrubbery, in any country, can exceed the magnificence of our *magnolias*, our *clethra* and *calycanthus* which fill the air with delicious perfume, the elegant *azalea*, the majestic *rose-bay laurel*, or the lovely *kalmia*. Yet these truly splendid evidences of our vegetable grandeur, are rather to be sought for in their primeval forests, in the swamps, or on their native mountains, than among the inferior usurpers of their places in our gardens. The glories of our herbaceous Flora are not less conspicuous. Our *yuccas* and *agaves* and *lilies*, those nobles in the empire of Flora, have forced themselves upon our notice, and our borders sometimes display the variegated hues of the *monarda* and *lobelia*, the *hibiscus*, the *asclepias*, and the *rocket*, but a rich harvest of wild beauties, not less interesting, remains to be transferred to their proper places, as the legitimate ornaments of an American garden.

Such are the broad features of our domestic horticulture. Sufficient has been noticed to prove the capabilities of our climate for the most exquisite fruits of the garden and the orchard, and the choicest ornaments of the border and parterre. The inference will readily be drawn, that in the humbler, though more useful department of our art, the production of culinary vegetables, its aptitude is no wise inferior. Your records would testify to the powerful vegetation which is elicited from our soil, under the skillful management of the scientific gardener. But it is unnecessary to dwell longer on a subject which is so well understood—nature has liberally shed her bounties over our land; it is ours to second her efforts, and direct her energies by the assistance to be derived from horticultural science. We have associated for the purpose of promoting its improvements, and the means by which this can be accomplished are sufficiently obvious. Our art has an important bearing upon the comforts and refinements of society; and in our efforts to advance its objects, we may be assured of an object always to be kept in view by the patriot citizen—the union of individual pleasure with public utility.

* Prunus Americanus, Marshall.

To the Editor of the New-York Farmer,

DEAR SIR,

I, a short time since, received from Mr. Gaimar d one of the companions of Captain Dumont D'Urvill e commander of the Corvette Astrolabe, which was despatched during 1826, on a voyage of discovery to Australasia, by the French government, the prospectus of a royal publication on that expedition. The sender is one of the physicians of the navy, and was directed jointly, with M. Quoy, to take charge of the collections in Zoology. For these functions they both seem

to be remarkably well qualified. I offer you a concise abstract of this memorable document.

Yours, as heretofore, with respect,

SAMUEL L. MITCHILL.

ART. CLXXXVI.—*Abstract of the Prospectus of Captain D'Urville's Voyage to Australasia.*

It appears that M. D'Urville had acquired much practical knowledge in maritime explorations, previous to this voyage, had acquired a fair fund of reputation, among the savans, and had acted as botanist and entomologist on one of the former voyages. He was enabled thereby to publish an enumeration of the plants which he discovered and collected on the Islands of the Archipelago, and the shores of the Black Sea. It is to him that the age is indebted for the elegant statue of the Venus of Milo, transported to Paris, and now one of the superb mouuments of Grecian sculpture in the museum of the king. This grand Prospectus contains several lithographic representations; one of a likeness, in profile of King Charles X., author and patron of the undertaking; another of the monument Capt. D'Urville caused to be erected to the memory of the celebrated and unfortunate navigator La Peyrouse; a third, of the rock of Gibraltar, seen from the south; and a fourth of a fossil Eucalyptus, from King George's sound. The original name of the Corvette was *La Coquille*, or *the Shell*, which was changed in honour of the distinguished explorer just mentioned, to the Astrolabe, the vessel which he commanded. This enterprising explorer, after encountering unspeakable difficulties, from the natural and physical elements, succeeded, at length, among other objects, in finding the bay of *Manevai*, in the island of *Vanicoro*. There he and his companions erected a plain and modest monument, with this simple inscription: "The Astrolabe, to the memory of La Peyrouse and his companions, March 14, 1828." On the 5th page is a lithographic representation of it. M. Jaquinot was appointed second in command, and charged with the astronomical department, with all its observations and calculations. Messrs. Lottin, Gressien, Guilbert, and Paris, were commissioned to take charge of the Hydrographic labors. In consequence of which, all the charts of the voyage have been sketched and finished by these four officers, under the direction of the captain. The different branches of Zoology were assigned to Messrs. Quoy and Gaimard, physicians to the fleet, two highly competent individuals.—Botany fell to the lot of their colleague M. Adolphe Lesson. M. Sainson embarked in the capacity of designer.

The Astrolabe left Toulon, on the 25th April, 1826. During a short stay at the Canary Islands, Messrs. Q. and G. made an excursion to the summit of Teneriffe. Thence the commander proceeded to the Cape de Verd Islands, and anchored in the harbour of Port Praya, in Saint Jago. There they met Capt. Owen, who was returning from Africa, with immense treasures.

After this, the vessel passed the Cape of Good Hope, traversed the full extent of the Indian Ocean, and finally, on the 7th October, anchored in the bay of King George. During this run, they suffered all the rigours of an Austral winter, buffeted by terrible winds and formidable seas. Notwithstanding such distressing obstacles, experiments on the temperature above, and at great depths below, were successfully made.

The expedition thence proceeded to Bass's Straits; stopped at Port Western, where no scientific men had ever been; called at Jarvis's Bay, and eventually found their way to Port Jackson, on the 2d November. At these stoppages an incredible mass of materials was collected, though the gentlemen concerned thought they had just commenced their operations.

The vessel then visited New Zealand, Tongatabboo, Loyalty Islands; coasted New Caledonia, and Louissade; surveyed New Ireland, and New Britain, and New Guinea; passed rapidly the Moluccas, and remained a fortnight at Amboyna. She had experienced the severest weather, had been aground on the reefs, and suffered a loss of cables and anchors. In one place the natives kidnapped a boat with eleven of his men. To redeem them Capt. D'Urville declared war, and cannonaded their castles for three days, before they would surrender their prisoners. She thence took a run to New Holland and Van Dieman's Land. She traversed next the Marian, the Caroline, and the Pelew Islands, with various groups, in that Polynesian Ocean. She went once more to Amboyna, the crew suffering severely with fever and dysentery. Having recruited, in some measure, she passed the Straits of Banca, to the northward of Celebes, and anchored in the road of Manado. She then shaped her course homeward by the Strait of Sunda, Batavia, the Isles of France and Bourbon, Cape of Good Hope, Saint Helena, and Ascension; and finally arrived safe at Marseilles, after an absence of thirty-five months.—Three fourths of this long voyage were passed under sail, for the more complete accomplishment of the important objects of the undertaking. The officers and explorers have completely succeeded, notwithstanding the difficulties and dangers they had to encounter, in bringing home a vast collection of articles, which will be added to the stock of science, for the benefit of the civilized world.

It is proposed that this publication shall appear in twelve volumes, grand octavo, ornamented with more than one hundred vignettes in wood, and accompanied by an atlas, containing near six hundred plates, or charts, in grand folio. There is a medalic likeness of Charles X., King of France and Navarre, struck in 1826, who was patron of this spirited voyage of discovery.

The information collected will be arranged under the following heads, or principal divisions.

1. Navigation and Hydrography, with Geographical and Historical Notices, Charts, Plans, &c. by M. Dumont D'Urville, himself.

2. Meteorology, Magnetism, Temperature of the Ocean, at different depths, and observations on geneeral Physics, in a memoir prepared by M. Arago.

3. Zoology, edited in five large volumes, accompanied by an Atlas consisting of at least two hundred plates, in grand folio, by Messrs. Quoy and Gaimard.

4. Entomology: or a description of the Insects collected; prepared by M. Latreilles.

5. Geology; from the joint collection of Messrs. Quoy and Gaimard; in a report made to the Royal Academy of Sciences, by M. Cordier.

6. Botany, from the collections made during the voyage, by M. Lesson the younger, assisted by M. A. Richard; illustrated by plates.

7. Sketches and designs of M. Sainson, forming the history of the voyage; from a report made to the Academy of Science, by M. Bidault. This will comprehend about two hundred and forty plates, containing views, landscapes, portraits, costumes, monuments, dwellings, vessels, arms, utensils, and things of those sorts. M. Sainson is extolled as a delineator of the highest taste and talent, and his sketches will be executed by artists of the highest ability.

It is to be hoped that the new revolution, and the abdication of the late king will not impede the progress of this noble work: but that it will be considered with a national regard, and progress as if no political change had taken place.

[For the New York Farmer.]

ART. CLXXXVII.—*Influence of the Stock on the Fruit of the Graft.* By D. T.

The art of Grafting, or of making one tree bear the branches and fruit of another, was well known to the ancients; and the facility with which trees of any kind of orchard fruit may be produced from a twig or even from a single bud, as well as the certainty of possessing the genuine derived kind, has caused this art to be very generally practiced. Some indeed, have said that *the stock has an influence on the fruit;* that is, that the fruit of any given variety may be improved or deteriorated by grafting on stocks naturally different in their products. I have not learned, however, that nurserymen, nor even the amateurs of fine fruit, have attended much to the subject.

A few years ago I procured scions of the Jargonelle pears. Some were budded on pear-stocks, but as these were scarce with me at the time, I set some buds on the branches of a Spitzenburgh apple tree. All have borne fruit this season, in considerable quantities. One pear tree, standing on low flattish ground, was some days earlier than another that stood on a dryer soil; and all which grew on pear stocks, were at least a fortnight earlier than those on the apple tree. This difference I cannot ascribe to aspect. The average size of both kinds, were perhaps equal, but the pears on the apple tree were rather *astringent*, and considerably *redder* and *sourer* than those on the pear trees.

It is *easy* to fancy that those pears had imbibed some of the juices of the Spitzenburgh, but it is *hard* to explain in what manner. The stalk of the common white lily set in water with the juice of ripe poke-berries, absorbs the colouring matter without decomposing it, and the petals redden; but with the pear this case is not analogous:—the sap which flows in the branches of the Spitzenburgh has neither the acidity nor the flavour of that fruit; it is a different liquid from the juices of the apple; and I know not how it could impart qualities to the pear which it did not possess when it entered the branch, and which it only acquires by *elaboration* in the glands of the apple.

The branches of the Spitzenburgh, however, formed the greater part of the tree, and some were very near to the branches of the Jargonelle. A friend has suggested, therefore, that the difference in this pears may have been caused by the pollen from the apple blossoms. It appears to be generally admitted, indeed, that the pollen of one variety, when applied to the pistils of another variety,* will produce new kinds, differing from both; and I know no reason why that effect or change should not extend to the *pulp*, as well as to the *seed*. Probably some readers of the New-York Farmer can supply other facts on this subject.

D. T.

[For the New-York Farmer.]

ART. CLXXXVIII.—*Remarks on the season, in the vicinity of Cayuga Lake.* By D. T.

The spring opened early; and the fourth month, (April,) was one of the most pleasant that we have seen in 25 years. An exemption from frost, seasonable rains, and warm breezes, induced many vegetables to protrude their shoots, which generally lie dormant till a later period. On the 20th, the *apricot* and the *peach* were in bloom; I found it necessary to uncover the *vine*, which in other years had been deferred ten days or a fortnight; and we indulged in the hope that the fine season was fully established.

Early in the 5th month, (May,) however, we experienced a great change of temperature, and we seemed enveloped in the atmosphere of a colder climate.—Chilling rains and frosts were of frequent occurrence; the young shoots of the vine were greatly damaged, and the blossoms in many instances destroyed. In that succulent state, the hardiest had no advantage over the most tender kinds.

Far different was the state of our standard trees; the young fruit bore the frost without injury, and a benefit unlooked for, ensued from this discouraging state of the weather: the operations of the Curculio, were nearly prevented, even in situations where no precautions had been used, and where, in former years, most of the *smooth skin stone fruits* had been successively destroyed. Wherever there were trees, we have therefore had *apricots*, *nectarines*, and *plums*, &c. in great abundance.

The season also proved favorable to *wheat, the great staple crop of this district*, notwithstanding the fears of the farmer; and I close with an anecdote of Dr. Swift, abridged from Sheridan.

Swift. Pray sir, did you ever see any good weather in the world?

Country Gentleman. Yes sir, I thank God, I remember a great deal of good weather in my time.

Swift. That is more than I can say; I never remember any weather that was not too hot, or too cold; too wet or too dry; but as God Almighty contrives it, at the end of the year it is all very well. D. T.

[For the New-York Farmer.]

ART. CLXXXIX.—*Enquiry—Duration of Roses, budded on Sweet Briars.*

In the New-York Farmer, No. 8, of the present year, we find an account of the culture of Roses, budded on sweet briars. Nothing is said in regard to their duration; but from the importance which the author seems, by the minuteness of his description, to attach to this culture, it is fair to infer that such plants

* Plants of different *species* sometimes produce mules, or *hybrids*, as well as the *varieties* of the same *species*.

are not short-lived. PRINCE in his "*Short Treatise on Horticulture*," however, says, that "that they may be increased by innoculating and grafting, but *these seldom survive beyond the third year.*" He has not mentioned the kind of stock on which his experiments were made: and it is probable that the kinds will constitute a difference in their duration. Any rose which is not *stoloniferous* possesses *one good property* of a stock. Several (perhaps all) China Roses are of this kind, as well as the common *multiflora*, but few of these are perfectly hardy north of New-York. The climbing Rose, of the Wertern States *(Rosa rubifolia)* appears less inclined to spread by the roots, than even the sweet briar; and it is hardy enough for our purpose.

Many of our fine roses are very troublesome in the border, so that in removing the suckers, we injuriously disturb other plants, and more particularly *the edging*. If stocks *not stoloniferous* can be found to nourish durable roses, we shall obtain a very desirable object. Permit me, therefore, to ask, what is known to this matter?

AN ENQUIRER.

[For the New-York Farmer.]

ART. CXC.--*On Fruit Gardens.*—By AN OLD MAN.

It has been said that a taste for fine fruit is incompatible with an appetite for spirituous liquors. Perhaps more observations would better establish this position; and I give two cases: *one* who was inclined to be intemperate has told me that he *preferred a boiled potatoe to the best peach: another*, whose circumstances induced him to take brandy almost daily for several years, but who had a keen taste for fine fruit, *never acquired any increasing relish for that liquor.*

In accordance with these facts, it will not be extravagant to ascribe the superior temperance of the French, less to their wine than to the delicious fruits of their country and climate; for a taste for many fruits, like a taste for some products of the cook, can only be acquired by use; and such *acquired appetites are heightened* (not blunted) *by repetition.* I may be better understood by naming the papaw, the tomato, and even the musk melon, which are disagreeable at first, to many persons, but which seem to become more delicious as the taste (not flavour) improves.

If these views are correct, then *those who have made temperance popular* ought to favor the multiplication of *fruit gardens*, and unite to protect them.

A *fruit garden* in this *free* country, ought to be protected by nothing less formidable than a pale or picket fence. It is in vain to think of having good fruit in small quantities, unless the proprietor can control every thumb and finger within his grounds, so that his stone-fruit, more especially, may be fully ripe before it be removed from the tree. It is a fact, though it may not be generally known, that *such fruit is often considered ripe, and eaten, before it has attained one half of its finest flavour.*

I am disposed to believe that our countrymen in no point exhibit such general laxity of morals, as in plundering fruit; and parents, guardians and teachers, who are anxious for the virtue and respectability of those entrusted to their care, ought to guard them against this "besetting sin." I once heard a native of Connecticut exclaim, with reference to this subject, in a neighborhood infested with canal diggers, "one Yankee is worse than one hundred Irishmen."

Now, it is an old and trite adage, *there is a cause for every thing;* and if our countrymen take greater liberties than Irishmen, it may be traced to the united effects of our social habits and climate. In situations remote from populous villages and cities, the lines which separate the different classes of society, become less distinct; and in new settlements, almost every neighbour is received on the footing of a friendly acquaintance. In such places, who, among the superabundance of his apples, which bestrew the ground in Autumn, would refuse a pocket-full to a neighbor's boy? or who would hesitate to let him climb among the long rows of the common cherry trees, bending with their fruit? Perhaps the applicant is told by the proprietor (who freely gives what he cannot use or sell) not to trouble himself by asking in future, but to take *what*, and *whenever* he wants. "Give an inch, and he will take an ell." The pear or plum tree, near the door, or in the garden, is visited next; and the urchin, if received with less kindness than formerly, takes advantage of the absence of the family, or pays his visits in the dark. Readers of the New-York Farmer! who of your neighhors teach their sons that such practices are disgraceful? that it degrades them by lessening their self respect, and prepares them for vices of greater magnitude? Well, let us hope that there are some, and that the next generation will be better.

By the revised laws of the state of New-York, to plunder fruit, or to injure fruit trees, is no longer considered simply a case of trespass, but *a misdemeanor*, punishable by $150 fine, and by six months imprisonment. Such nightly prowler is not barely to pay for damages assessed, but he now takes rank as a criminal offending the community at large.

In days past, fine gardens were comparatively few; and chiefly under the care of those who rendered nightly visits dangerous. But the spirit or horticulture is widely spreading through the interior country; we find active farmers devoting a portion of their time to the grape, and to other delicious fruits; and it is in these situations that this licentiousness rages to the greatest extent. It is here that the protection of government is more especially required, so that *the idle* may not riot on the spoils of *the industrious* and I rejoice that this protection is to be extended.

Those who steal are few in proportion to those who plunder fruit. Why is this so? Because the thief has been punished and despised. Yet the plunderers of fruit often commit greater outrages. Who that has purchased some fine fruit tree, at a high price, conveyed it hundreds of miles, manured, cultivated, and protected it against insects;—who, when the season arrives to prove the genuinenss of the kind, and his prospects rise as the fruit softens, finds nothing in the morning but lacerated and half-leafless branches;—who that has endured this, after waiting in hopes to present a part to the sick, or to some object of affection, would not rather have his corn-crib plundred by the needy? But why is it not as iniquitous to rob the cultivator of his fruits, as to rob the mechanic of his wares, or the merchant of his goods? The plea of a greater temptation will not hold. But why punish the thief? Because he deprives the labourer of his reward, and checks the prosperity of the land. Then

assist to detect and punish those whose depredations check the advancement of horticulture. Disgrace them by enforcing the laws, and hundreds of parents who now let their sons run at large, will give them *lessons in morality* which they have long and shamefully neglected.

A pale or picket fence is a great protection to a *fruit garden;* for though some desperadoes may break through a few times in a season, it will effectually prevent the inroads of the small fry; and it has another important advantage: there are men and grown boys whose *business* frequently leads them across lots, through peach orchards, and directly under pear trees, that stand in a common enclosure; but who are too cautious to scale a garden fence, because they have no *excuse* for appearing on the inside; and these constitute a majority of the prowlers.

Further, *those who shoot into a garden at night, generally take aim in the day time.* Prevent their observations (this fence will in many cases prevent it) and the temptation and danger will greatly be lessened. A good watch dog, however, is in all cases, a valuable auxiliary.

There may be many causes why *fruit gardens* have not been more common among our independent farmers. I think that more would be done, however, were they better acquainted with fine fruit. To be fine, it must be well ripened; and the small part that the owner can get from a few small *cherry trees* (for instance) warring amongst boys and birds is seldom a fair specimen Many such proprietors, though old men, have never eaten a ripe *May duke*, or a ripe *black Tartarian.*

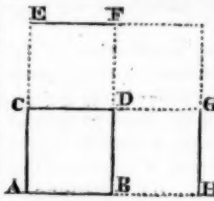
The importance of apples, both for the dessert, and for culinary purposes, is so generally admitted that to do without them would be considered a great privation; yet one month in summer, passes away with a great majority of the landholders, destitute of this luxury, while *the yellow harvest, the juneating, the summer rose*, and others, are dropping from the trees of the provident.

Of *the white promordian* plum, *the precoce de Tours*, and other early kinds, it is enough to ask who has tasted? and I should be unwilling to say that one in ten, of our inland farmers had ever eaten an *apricot* or a *nectarine.* Summer pears are of frequent occurrence, but of those delicious kinds that grace the dessert in winter, among many, even the existence is not known. I am not dealing in fiction.

And the *apricot* is a fine fruit, too little known.—*(Where?* I write with reference to a certain meridian, but the remark will serve without material error as the almanac makers say, for a region of hundreds of miles in extent.) Many varieties of this fruit are enumerated by nurserymen; and if not quite equal to the peach, remember! they ripen one month earlier, and help to fill a wide space in the circle of summer fruits. *The same climate that suits the peach will mature them on standard trees in the open ground.* I speak from the experience of several years, and find them in every respect, as hardy as the peach tree; neither are the blossoms more injured by vernal frosts. Like the plum, the fruit is subject to the attacks of the Curculio, and may be protected in the same manner. Under our bright and genial skies, it is to be regretted that we have known so little of this wholesome and delicious fruit.

The number of trees required in a *fruit garden* must depend on particular circumstances. Where the peach tree flourishes, the apricot, quince, and nectarine, *(that smooth skin peach of peculiar flavour)* should be added; but in a large part of the state of New-York, the chief dependence must be on cherries, plums, and pears, including the earlier varieties of the apple. A liberal allowance for unfavorable years should be made; and let the horticulturist remember that "enough means a little more" (at one time than another.)

Another consideration in favor of a good sized garden may be presented: in squares, twice the length of fence will enclose four times the quantity of ground.

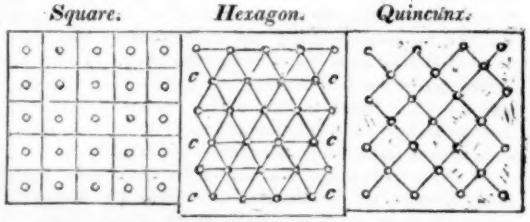


To make this plain let A B C D contain half an acre—it may be too small. Move the fence C D to E F; and D B to G H. You have two acres; and the black lines shew that half the fence is made.

At least three modes of arranging the trees have been adopted. One is to lay out the ground in connected equilateral triangles, and plant at the angles. *This places the trees more equally over the ground*, than some other plans,—each tree except those at the sides, standing in the centre of a hexagon, surrounded by six trees at equal distances. More trees will stand on a given piece of ground in this order, *with the same distance between the nearest trees*, than if planted in squares. In the latter form, each tree stands in the centre of a square, surrounded by only four others at equal distances.

The advantage of the hexagonal form is overbalanced, however, in small enclosures, by unoccupied spaces at the sides; and the same objection applies to the Quincunx. For this reason I prefer planting in squares. The annexed diagram of a garden 100 feet square, to be planted with trees 20 feet apart, and no tree nearer to the fence than 10 feet, will present a clear view of the subject.

Square. *Hexagon.* *Quincunx.*



In the square we have 25 spaces of 400 square feet, each tree standing in the centre.

In the hexagon or equilateral triangle, *ccc, ccc* shew unoccupied spaces. The lower row of trees is about 3 feet from the fence. If the enclosure be enlarged by removing the side 7 feet out, it will then contain 27 trees.

To lay out the Quincunx, we want 105 feet square (an addition of more than one tenth of the quantity first given) and it then only contains 25 trees.

Some writers object to manuring fruit trees. I read one of these last season just before I started with a friend on an excursion of nearly 100 miles through the country; and on passing the various farms, our attention was continually turned to the subject. We observed without exception, that peach trees more espe-

cially, which received the wash of the cow-yard, were distinguishable by the deep green of their leaves, and the greater size of the fruit; and the flavour of these was unquestionably finer than the peaches from trees with paler leaves. The juices in fruit, undergo an additional *elaboration;* and eminent horticulturists have believed that no injurious effect is perceptible, even from such manures as taint the stalks and leaves of culinary vegetables.

In preparing to plant my FRUIT GARDEN, the holes were ordered to be dug six feet in diameter, and two feet in depth. The subsoil was thrown back, and layers of potato tops, straw, &c. were covered with sods, or rich mould from the surface. Leaves and decaying brush from the woods would be a valuable addition. When treated in this manner, not only are the trees more likely to grow, but grow so much faster, that they come sooner into full bearing by several years. This is not all,—the fruit will be finer in both size and flavour, and more especially in seasons of severe drought.

For this long article I apologize by my signature,

AN OLD MAN.

NOTE.—Revised Laws of the State of New-York. Part 4th. Chap. I. Title 6th. Section.

☞ "Every person who shall wilfully commit any trespass by maliciously cutting down, lopping, girdling, or otherwise injuring any fruit, or ornamental, or shade tree,—or by maliciously *severing from the freehold any produce thereof, or any thing attached thereto,*—shall upon conviction be adjudged guilty of a misdemeanor, and shall be punished by imprisonment in a county jail, not exceeding six months,—or by a fine not exceeding one hundred and fifty dollars,—or by both such fine and imprisonment."

Editors of Newspapers who would publish the section; and from time to time inculcate the duty of parents to restrain their children from plundering their neighbour's orchards and FRUIT GARDENS, would be fairly entitled to a basket of fine fruit from every garden in the neighbourhood; and in regard to a more permanent felicity, they would deservedly rank with the benefactors of their race.

ART. CXCI.—*Notice of an Address delivered before the Jefferson County Agricultural Society, Sept. 28th.* 1830. BY V. LE RAY DE CHAUMONT.

In the preceding volume, we noticed an address delivered before this society by its president, the father of the orator on the present occasion. Mr. V. Le Ray de Chaumont has almost exclusively, and very properly, dwelt on those topics that are appropriately and peculiarly calculated to promote the agricultural interest of those embraced in the limits of the society. His address is replete with plain practical directions, and with suggestions that cannot fail of accomplishing the ends in view—of giving confidence to the farmer in the steps recommended, and of awakening him to make the best use of the circumstances arising from his locality, and from the changes and improvements affecting the demands for the productions of his soil.

The appendix to the address contains a report of the Visiting Committee, made up from an itinerating inspection of the farms throughout the county. This report, by bringing to light the improvements that have been introduced, and by suggesting others occurring to the committee from seeing what has been accomplished, and from their more extensive information of what is doing in other parts of our country and in foreign lands, must tend to improve the condition of the farmer, and augment the wealth of the county.

In awarding premiums, the society gives encouragement for the productions of the garden as well those of the field. By assuming the double title of agricultural and horticultural, county societies would enlist more men of taste and leisure, and thus they would be the means of introducing more generally among the farmers the finer fruits and esculents of the garden.

We make the following extracts from the address before us.

Gentlemen of the Society, and Fellow-Citizens.—WE meet on this annual occasion under the most favourable circumstances. This has been an unusually healthy and productive year. Our Society, the second in age in the State, is now "the only existing monument of its kind of that enlightened legislature, which so judiciously appropriated a portion of the funds of the State, for the noble object of promoting agriculture."

Far from being dispirited by the withdrawal of its support, we have drawn new energies to our aid—we have kept alive the sacred fire and will keep it still brighter and brighter, until it shall again extend over the State; we have held out to our fellow-citizens an example by which they may see the benefits to be derived from it, and in progressing steadily in usefulness and prosperity. We have improved our rules and regulations, and thereby acquired the support of many who before had objections to join us. The spirit of liberality which had presided over the subscriptions has increased, but not so much in proportion with other classes among our farmers, and particularly those of the south part of the county.

The labours of this viewing committee, composed of some of our most intelligent farmers, who go every year through those parts of the county where farms are offered for premiums, collect and interchange information, and afterwards embody part of their observations in a report which is read to the society, appear to me to be among the most important results of our institution, and sufficient in themselves to justify and repay all we do to sustain it. The individuals who have at different times composed those committees, deserve our warmest thanks. Their influence, considered as a channel of information, as a connecting link between the different parts of this county, would be far greater if more towns should invite their attention. Their able reports have generally encouraged us by the account they gave of the improvement we make every year, and I feel pleasure and pride in adding the flattering testimony of one of the most enlightened landholders in the state, whose property lies principally in St. Lawrence county, and who in answering an application for a subscription, says, that "no person can travel through the county of Jefferson without remarking the change which has taken place in our agricultural condition," and that it is indisputable that our society has given an impulse to these improvements. This compliment was not a mere show of words, as it was backed by a remittance of fifty dollars.

It can hardly be suspected at this day that intelli-

gent farmers, even if they should yet see some points in our society which might be improved, have great doubts upon its general utility, or believe that such societies cannot do much good, because they are sometimes partly conducted by persons who are not labouring farmers. No mistake could be greater than this. To cultivate well your farms, and raise the greatest possible quantity of the productions which have been raised by your fathers, are undoubtedly important objects of improvement; but among an intelligent and industrious people they cannot fail of being attained, and they will, without an agricultural society, make a good country, producing plenty of food and raiment for the population, and perchance for a little exportation. But will this ensure the prosperity and growth of the country under all the vicissitudes which the world is almost daily undergoing? Far from it. Look at the cotton, tobacco and rice, the principal articles of exportation of these united States; the wines of France; and in short, almost all the agricultural products which now form the basis of the riches and power of civilized nations. Were they known to our ancestors a few hundred years ago? Who introduced them where they seem to be indigenous? Not only they were not farmers, but they have sometimes been opposed most strenuously by the very class who were to derive most advantage from the introduction of a new plant. Such reproach I know could not be incurred by the American farmers. They show themselves ready to adopt what appears advantageous, and therefore agricultural societies are calculated to be very useful in this country, since their object is not only to improve the mode of cultivating the common products of the country, but to introduce new ones. To the great staples which I have above mentioned, it is probable that in a few years two will be added, or perhaps even by another change in some other country, will take the place of one or more of those.

Hemp, one of those articles to which I allude, has been cultivated with great success in many parts of the United States. It is a fact well ascertained by numerous experiments and confirmed by the navy commissioners in their reports, that American hemp is preferable to Russia. I see in a publication from one of our most enlightened agriculturists, (Judge Buel of Albany,) that "the United States pay annually to the foreign cultivators and manufacturers of hemp, more than two millions seven hundred thousand dollars. There is therefore little danger of glutting our markets with this necessary production. Most of the states from Tennessee to Maine already grow hemp, and in this state it is successfully and profitably cultivated, particularly in the counties of Orange, Saratoga, Washington, Tompkins, &c. upon most of the soils which yield a profit in the ordinary productions of agriculture." After some farther remarks upon soils adapted to hemp, Judge Buel adds, "It will do well on any soil that will grow good flax," and he concludes that it will be profitable to the American farmer from the following facts: the quantity grown among us has greatly increased and probably quadrupled within the last four years. Few have abandoned its culture who commenced it under favourable circumstances, while many are annually turning their attention to it. Foreign hemp has increased in price on account of the tariff: one half of the ordinary expense in cleaning and preparing it for market may now be saved by the newly invented machine for separating the lint from the fibre; and the process of water rotting increases the value of the article, and renders American hemp equal in value and quantity to Russian or Piedmont. A select committee of the legislature of Ohio, made an elaborate report last winter, in which they speak favourably of the climate of our part of the United States for its cultivation, and conclude their remarks upon the soil adapted to it, by saying, "any land however that will bring a good crop of flax, corn or potatoes, will bring a good crop of hemp." This report published in the New-England Farmer, is a good treatise upon the cultivation of hemp, and would alone repay a year's subscription to an agricultural paper.

The second article above alluded to as likely to be added to our products, is *silk*, for which we pay annually above *ten millions* of dollars to foreign countries, but which will probably be shortly produced in the United States in sufficient quantities for consumption, and even exportation, and will partly be manufactured here. It is now ascertained and acknowledged in France, that the quality of the raw silk is superior to that of other countries, and no difficulty exists in producing it to any extent. The white mulberry tree, on which the worm feeds, will succeed well here, so far as we can judge by analogy and the short experience we have had. The leaves may be gathered by children after school hours, and females from twelve to fifteen are amply sufficient to attend to the worms within doors. Mr. Rapp, in a letter dated Economy, Pa. 30th June, 1830, says, "adhering to the instructions given in the American Farmer, and books treating on the culture and manufacture of silk, we find *no difficulty* in keeping the worms healthy, unwinding or reeling the silk, or weaving it." In 1828, the industrious society directed by him, made a small beginning; they have now made *stripe* for female apparel, vesting, and one hundred handkerchiefs, of a good quality, and feel sufficiently encouraged to have erected a *two-story building*, 24 by 44, for the worms and the various operations of the silk manufacture. It appears, however, that the finer textures of silk require a *more* delicate process for reeling, so much so, that it is only in the south of France and north of Italy that it is well understood. Congress will probably next winter pass a law, which they had no time to act upon last session, providing for the *teaching of skifull reelers*, and meanwhile the family reel will answer for family use, and our ladies may shortly attend our anniversary in silk dresses of their own manufacture.

It was a most gratifying surprise for me on my return to the United States, after a year's absence, to find the great improvement which had been effected in the morals of the people in the use of ardent spirits. If there was one cause capable of checking and arresting the unexampled prosperity of this country, it was the frightful increase of the vice of intemperance. For the last thirty or forty years, a great melioration had taken place in the customs of the richer classes in that particular. A fashion, imported from England, was prevalent in our cities at that period, of sitting at the dinner-table many hours after the cloth was removed, and it was no uncommon thing nor was it esteemed derogatory, for men of respectable standing, to drink to an excess on these

occasions, which would hardly be credited here. The more refined custom of soon joining the ladies or even of accompanying them to the drawing-room, is now prevalent; and this has been aided in its good effect by the more general introduction of the lighter French wines, of which the influence upon the sobriety of a people is so universally acknowledged, that it has been urged upon congress as a reason for diminishing the duties upon them. The low price of whiskey, since the fall in price of grains, is probably the great reason for the alarming increase of intemperance among the poorer classes. But where wine, not stronger than cider, as the common French wines, is generally drank, temperance is universally admitted to be prevalent. Those wines are also healthy; and it is the opinion of enlightened and good men, that the most effectual and lasting mode of reducing the use of ardent spirits is the one recommended last year by your president, of introducing generally the cultivation of the grape. I know that this will be controverted by men very intelligent and very good too. But my little experience tells me that moderation is the more sure way of proceeding in amendments, and that we must mistrust, in this country particularly, an eagerness of zeal which has carried too far almost all the objects to which public attention has been called.

In thus recommending the culture of the grape (for family use only, either as wine or for the table,) we are encouraged by one more year of success. That plant is subject to injury by late frosts in the spring, even in its favoured abodes of the south of Europe. We cannot complain, therefore, if after the uncommonly warm month of April of this year, the grape was hurt in the succeeding month. But those which have escaped this partial injury, show that in proper situations and with due care, this plant is destined to find a congenial country among us. I have great pleasure in quoting the grape-vines of Major Brown, one of which, particularly, a mere cutting, planted three years ago. It is of a valuable kind, (Early Morillon) and has produced this year one hundred and twenty clusters, of good size, which came to perfect maturity about a fortnight ago, notwithstanding the unfavourable season. Many parts of this county produce a kind of wild grape. It would be perhaps the surest way, as it is the easiest and quickest of obtaining good fruit, to graft upon those stocks. The grafting of the vine was long considered extremely difficult. My brother has tried the experiment upon the wild-stock of this country, and it has perfectly succeeded. The best mode of grafting appears to be that described by Dufour, of the Vevay Swiss vineyards, in the "American Vine-dresser's Guide," and is thus described by Mr. Horatio Gates Spafford, (author of the New-York Gazetteer) who says, that every one in the neighbourhood of Troy practises upon this plan, and that he has found it by experience perfectly successful.

Another means of attaining useful knowledge, I would mention is the subscribing to some periodical publication principally devoted to agriculture. There are two which, from their location and the manner in which they are conducted, I would highly recommend. One is the New-York Farmer, published monthly in the city of New-York, at three dollars; the other the New-England Farmer, a weekly paper of Boston, at two dollars fifty cents per annum. The New-England Farmer is taken by two of our most enlightened members who have the highest opinion of its merits and usefulness. Some numbers of those papers will be distributed with a part of the premiums. In taking a paper devoted to agriculture, it might be an economical and otherwise advantageous way, to unite several in a close neighbourhood, and meet weekly on some evening to read the paper. Each would make his remarks and bring his stock of knowledge and experience. The young part of the families would be instructed. The habit of observation, of investigation, the social feeling which such meetings would foster, would, it seems to me, produce very great benefits.

The New-York Farmer is under the patronage of the horticultural society of that city, but both papers devote a large space to gardening; and it would perhaps not be among the least beneficial results this would produce, if they should improve so useful and important a part of a good farm. It is well to raise the best provender for our cattle, and adopt new species when they are well recommended; but I think we ought to take as good care of ourselves.

A well cultivated garden on a farm bespeaks more than any thing else, order and comfort, and has this peculiar merit that it is an outward testimony in praise of the female part of the family, whose care is necessary to its success.

The inhabitants of this county have had lately an occasion of displaying their taste for scientific and useful pursuits. Mr. Finch, a distinguished mineralogist, was attracted by a subscription to deliver a course of lectures at Watertown, in the intervals between which he visited several parts of this county, and on his last evening, gave a summary account of what he had seen, the substance of which will be published. Besides the objects of curiosity for the intelligent and inquiring traveller which he mentioned, and which are not immediately connected with our present purpose, it was gratifying to hear this gentleman who has travelled over a great part of the United States, and whose business makes him a close observer of the soils of a country, express himself in so favourable terms upon our part of the state. A very important conclusion may be drawn from his observations upon the part of our county which rests upon limestone. It is objected by some of the people residing in that part when they are advised to burn some of the stones which they find upon their farms, and spread the dust upon their land, that as the country lies upon a lime rock, the soil must contain lime. Mr. Finch has said to you, that the conclusion is by no means certain upon general principles. It is undoubtedly false as it regards a pretty large tract of land; viz. the far greater proportion of the pine forest. As to the rest, Mr. Finch had not the means of making the nice experiments which are necessary to determine the exact quantity of lime contained in a soil; but he tried some earth picked up on the side of the street leading to the arsenal, and found it to contain very little lime. Some clay taken near the Universalist church, and chosen as one of the grounds most likely to contain a great deal of lime, showed the indication of very little; in the opinion of Mr. Finch, not over five per cent. The quantity which our soils contain is probably so small, that there can be no doubt of its being greatly improved by the introduction of lime: I find in Chaptal's Chemistry applied to Agriculture, that Mr. Tillet made at Paris a great number of experi-

ments upon the best proportions, in which sand, clay, and lime could be mixed to produce the most fertile soil, these three ingredients forming generally the best soils, with the addition sometimes of vegetable matter, which is very desirable, and also of other substances, which are not generally in such proportions as to affect sensibly its bearing qualities. He found that the best mixture was twenty-five per cent. of sand, thirty-seven and a half of clay, and thirty-seven and a half of lime. This agrees in a striking manner with the analysis as made by Bergmann of one of the best soils of Sweden, containing thirty sand, forty clay, and thirty lime, and with that of an excellent alluvial soil on the borders of the Loire made by Chaptal, but which he gives in a way which cannot be exactly compared with the foregoing without entering into too much detail. A piece of land in Touraine, which had just produced a fine crop of hemp, gave half sand and one quarter of each of the other ingredients. It may therefore be concluded that the most advantageous proportions in which sand, clay, and lime may enter into the composition of earths, are from one quarter to one half, although an excellent wheat land in Middlesex, England, was found by Davy to contain only one tenth of lime. Any farmer may find pretty nearly what proportion of lime his land contains by mixing limestone, finely powdered, in different proportions with dry sand and clay, (weighing each material,) by pouring a few drops of muriatic acid, which may be had at the druggists—on this mixture diluted in water, an effervescence will take place more or less strong in proportion to the quantity of lime; and by comparing it with that which takes place in pouring the same acid upon his soil, he will have a tolerable idea of the quantity of lime which it contains, bearing in mind that our limestone has about four tenths lime. But where a very great deficiency exists, if it could be corrected only by mixing a due proportion of lime, the evil would be practically irremediable. To make a soil containing thirty per cent. lime to the depth of six inches, five thousand bushels per acre would be required. But it has been found, that lime obtained by burning limestones, operates upon soils in the double capacity of a stimulant and of a component part of the soil. On this account forty or fifty bushels per acre are sufficient to produce a good effect, although several hundred bushels, and in one instance one thousand, have been used to advantage in Great Britain. Mr. Finch recommends, with reason, its use in this county, and quotes as examples the great benefits derived from it in Pennsylvania and in Jersey, and one instance at Brownville. There is no doubt that in some soils the effect is astonishing. Lime may also be added to land by using plaster. This is much cheaper, but will not have so lasting an effect. Which of the two will be preferable here will be determined by experience, and trials should be made on both, so as to enable us to choose between them.

And here I would beg leave to suggest a plan which I think would do more good than can be done any other way with any thing like the same trouble. Pattern farms have been established in other places, but they are extremely difficult to be well managed any where, and would be almost impracticable here at present. I would therefore spread the pattern farm all over the county. Let every man who tries an improvement on his farm, when it shall be on the road, (which he should try to do) put up a notice written with chalk on a piece of board, stating in a few words the nature of the experiment. In the case before us, for instance, let a few narrow strips running back from the road be left without liming, on average quality and situation. Write on a piece of board or shingle posted up, "thirty bushels stone lime per acre;" the strips left without liming will speak for themselves, and you will persuade more to follow your example than the recommendations of the greatest orators could do.

The roller, which is considered in France and in England, as one of the most important implements of modern husbandry, is not yet adopted in this county; but ought certainly to be after the high encomiums which are bestowed upon it by some of the best farmers in the eastern states, who have experienced the greatest benefits from its use. Repeated experiments made at the farm of Le Raysville, prompt me to recommend it with an entire confidence. It can all be made by the hand of the farmer, and comes to him so cheap, that the benefit he may reap from its use will repay him the very first year. It is not only advantageous to grain crops, but very much also for grass. One hour's work with the roller after ploughing and harrowing, says a farmer after eight years experience, will do more in pulverising the soil, and in producing a finer tilth, than ten times the amount of labour with plough or harrow. A smooth round log, eighteen inches or two feet in diameter, but the larger the better, and five or six feet long, will answer a very good purpose for a roller. Add, if you please, a box to carry the stones out of the field, or to augment the weight at pleasure, and a scraper to prevent the earth clogging your machine.

ART. CXCII.—*Sale, on the 11th inst., of thorough bred Horses, Durham short-horned cattle, and Improved Bakewell or New-Leicester English Sheep; belonging to* CHARLES H. HALL, Esq. Harlem, N.Y.

Our readers will perceive by the following prices, which we have obtained from Mr. Minturn, the auctioneer, how highly improved stock is estimated by our intelligent and wealthy farmers. The results which will flow from having such valuable cattle and sheep distributed in various sections of our country, will tend rapidly to introduce a renovated and more valuable race of these domestic animals.

No. 1. *Lady Lightfoot*, a noted running mare, four colts from her having sold at an average price of $1000 each, was sold for $1475,00. Destination, Chenango County, N. Y.

No. 2. Alarm, bred by Lord Grovesnor, foaled in 1820, now in foal by the imported Horse Barefoot, $650,00.

No. 3. Gazelle, bred by Mr. Hall, (one eye imperfect) with her colt, No. 10, sold for $380,00.

No. 4. Knott, a sorrel mare, six years old; by Bellfounder out of Cinnamon; in foal by Bald Eagle, son of American Eclipse, (one knee defective,) $110.

No. 5. *Lady Mary*—A bay mare, with a star and one white hind foot, ten years old; a beautiful animal, purchased by A. Dey, Esq. $425,00. Destination, his farm at Newark, N. J. for a Brood mare.

No. 6. A brown colt, 6 months old; out of Lady Lightfoot, by American Eclipse; purchased by Charles Green, Esq. $850,00. Destination, his farm on the Kennebec, Maine.

No. 7. Lightning, a brown filly, one year old last May, out of Alarm, by American Eclipse, $400.—Purchased by Mr. Stevens the owner of Eclipse.

No. 8. A brown filly, six months old, by Eclipse Lightfoot, out of Alarm. Purchased by A. Dey, Esq. $200. Destination, his farm at Newark, N. J.

No. 9. A dark bay, 2 years old, a fine Stallion, by Bussorah Arabian, out of Alarm, $500,00. Purchased by J. Ford, Esq.

No. 10. Sold with her dam, No. 3.

No. 11. A sorrel filly, out of Knot, by Eclipse Lightfoot, 4 months old, $60. Purchased by Mr. Suydam, N. J.

No. 12. Constellation, 5 years old, a fine Stallion, colour dark sorrel, got by American Eclipse, out of Olivia, a Virginia mare, $675,00. Purchased by R. M. Field, Esq.

No. 13. Bald Eagle, 5 years old, by American Eclipse, out of Hyacinth, $500,00. Purchased by Mr. Ely.

The Durham Cattle, about 30 in number, were in fine condition, and gave additional evidence of their natural *quiet* dispositions. Regent, an imported Bull, 8 years old, sold for $300, to S. P. Britton, Esq.—Destination, Elizabethtown, N. J.

Prince, 4 years old, got in England, by Fitz Favorite, out of Princess; was purchased by David Austin, Esq. for $210. Destination, his farm, at Throgg's Neck.

Patroon, 3 years old, by Champion, out of Flora, $200. Blanche, a white cow, a great milker, sent from England by Admiral Coffin, $90. Flora, an imported cow, and thorough bred, $150. Snow Drop, by Favourite, out of Blanche, $170. Lily, 4 years old, by Regent, out of Blanche, $250. Young Lily, 1 year old, by Albion, out of Flora, $100.—Young Snow Drop, by Regent, out of Snow Drop, $250. Young Princess, 1 year old, $90. Leopardess, 1 year old, by Regent, $45. Gardiner, 1 year old, by Young Regent, $90. Magnolia, 2 years old by Regent, out of Blanche, $150. A heifer calf, by Young Regent out of Magnolia, $90. A bull calf by Regent, out of Blanche, $50. A red heifer calf by Patroon, out of a cow by Comet, $45. A white bull calf by Young Regent, out of Young Snow Drop, $75. A bull calf by the same, $74. Two do. by Patroon, $75. One do. $25. One do. $20. A red cow by Comet, $50. Young Susan, two years old, by Regent, $130. A heifer, 1 year old, by Regent and Susan, $140. A yearling heifer by Regent, $45. A do. by do. $40.

Dr. Hosack purchased for his farm, at Hyde Park.

An imported Ram, of large size, sold for $95.—An imported Ewe, remarkably fine, $90. A Ram, the produce of the preceeding, $93. Twenty-seven yearlings and lambs, of the present year, and of the above blood, from $14 to $25 each.

All the animals were in good health and warranted as stated, pure in blood.

Total amount of sales, about $11,000.

The sale was attended by a large body of persons of the first respectability, from all parts of the country.

ART. CXCIII.—*Laboring Schools.*—By the EDITOR.

From the reports of several academic and theological institutions in various parts of our country, we perceive that the experiments in attending to manual labor, while acquiring an education, have resulted as satisfactorily as the warmest advocates of the system could have expected. We have long been, and are still, confident that the plan of uniting mental and manual culture, is the most natural method of education, best calculated to develope the powers of the mind, and admirably adapted to the circumstances and wants of every class. It tends to harmonise the physical, intellectual and moral powers of man, and make him what the Creator intended, capable of enjoying all the pleasures of sense and thought, unaffected and undiminished by either bodily or mental weakness.

From our own experience and observation, we believe that the money appropriated by the state for common schools, does, in reality, but little good; or rather, that the benefit is much less than it would be under a different disposition of it. Let part of it, at least, be expended in assisting the people of every town in purchasing a small farm, work houses, and apparatus for instruction. Provision thus made, poor parents would be at no expense for education, and would have the satisfaction of sending their children to a school of industry and virtue, instead of idleness, the precursor of vice.

In a proper state of society, youth should learn their trades while acquiring an education. Let the "Farmers, Mechanics, and *Workingmen*" advocate this system, and their *liberal* and *benevolent* objects will be obtained. The aid derived from government should, generally speaking, increase the privileges, and leave it to personal enterprise and industry to obtain them. The present plan of supporting public schools in the city, and district schools in the country, excites in the breasts of the scholars none of those noble feelings, arouses none of those dormant faculties, and confirms none of those habits which give us the *beau ideal* of a perfect citizen.

Among the institutions which have made provisions for manual labor is a Seminary at Whitesborough, N. Y., the Manual Labor Academy, at Germantown, Penn., at Elizabethtown, Shrewsbury, and Bloomfield, N. J., Union Theological Seminary, Va., Andover, Mass., Princeton, Kentucky, and at Maysville, Tennessee. The following is an extract from the report of the Manual Labor Academy, of Pennsylvania, in 1829.

"The premises consist of forty-two and a half acres of good land several out-houses, and a commodious dwelling on the main street, the residence of the late Dr. Blair. The farm is in the rear of the dwelling, opening on a lane which communicates with the main road; there is on it, stabling, a coach house, granary, cart shed, and farm yard, and a culinary garden of one third of an acre.

"The youth have respectable talents, habitual industry, and are pleased with the mode of education. The health of this interesting family has been uninterrupted, except in a few cases diseased when admitted. Every invalid remaining there has been restored to health. They board with the Principal, their diet plain, and in as great variety as is consistent with economy and health, and as much as possible the products of the pupil's labors on the farm. Piety, learning

and honest industry, are here united. Surely such an enterprise cannot fail.

"The usual branches of study in classical schools are pursued with the addition of the study of the bible. The hours of recreation are not hours of waste, and idleness, and immorality. They are employed in useful bodily labor; such as will exercise their skill, make them dexterous, establish their health and strength, enable each one to defray his own expenses, and fit him for the vicissitudes of life; particularly so, if they be destined for our new settlements as christian missionaries.

"Thus far they have been employed in carpenter work, gardening and farming. Four of the *students* are *good workmen in wood;* profitable in their own labor, and also as instructers to those who are less experienced. Six or seven thus employed have already made the various repairs of the building, and nearly *all* the *needful furniture*. Some orders from the city for small wooden articles have been executed by them, and they are ready for more. Those who are engaged in gardening have supplied the house. Others will furnish from the farm thirty bushels of wheat, seventy bushels of rye, ten tons of hay, one hundred and fifty bushels of corn, and three hundred and fifty bushels of potatoes."

The following, which we take from the N. Y. Evangelist, is a further proof that this system is gaining friends.

"The late Joseph Burr, Esq. of Manchester, in his last will gave the sum of $10,000, the interest of which is to be appropriated to the education of indigent pious young men, in a seminary to be located in that village preparatory to their entering on theological studies. This bequest, however, is made on the condition that the christian public actually expend $10,000 more, in buildings and apparatus. The trustees of the seminary, denominated the Burr seminary, have concluded to introduce the manual labor system.—They aim at a high standard of education, which they consider indispensably necessary to a profitable and useful ministry. Availing themselves of the manual labor system, the trustees do not expect to be under the necessity of taxing their beneficiaries to the amount of even $25 per annum each. While the American Education Society are loaning to their beneficiaries $75 per annum, their beneficiaries, although they might be taxed $25 each, would be saving $50 a year of this sum. This, certainly, is much better for the church, as well as for the students, than to be contracting a debt of $75 a year, through the whole course.

"Of the $10,000 required by the condition, $5,000 have already been raised in the vicinity of Manchester, and may be increased to $6,000. The whole sum, must be raised and actually expended by April, 1833, or the bequest, together with the $5,000 subscribed, will be lost. Rev. Messrs. Greene and Cornelius, of Boston, are authorized agents for the reception of the charities of the public for this purpose."

ART. CXCIV.—NATURAL HISTORY.—*Society of Animals.* By the EDITOR. [Continued from page 201.]

In the last number we brought together a few remarks on the hostility of animals: in this, we would reverse the picture, and exhibit a fairer feature. It is easy to perceive that many enjoyments, both of the human and brute race, flow from associating together. In society our powers are cultivated and brought into exercise. Hence, 'the mechanical and liberal arts flourish; poets, orators, historians, philosophers, lawyers, physicians, and theologians are produced.'—There are, indeed, evils connected with associating together, but these, (a great proportion at least) arise rather from unrestrained passions, and irrational conduct, than from being the consequences of the very nature of things.

By union of efforts mankind show themselves lords of the mundane sphere, both in the productions of art, and in intellectual science; and as the facilities of intercourse among nations increase, the powers of man become more and more developed.

With the exception of fishes, all animals in associating, have objects in view that are very apparent.

"No sooner" says Smellie, "are the common caterpillars hatched, than they begin to form a common habitation. They spin silken threads, which they attach to one edge of the leaf, and extend them to the other. By this operation they make the two edges of the leaf approach each other, and form a cavity resembling a hammock. In a short time, the concave leaf is completely roofed with a covering of silk. Under this tent the animals live together in mutual friendship and harmony. When not disposed to eat or to spin, they retire to their tent. It requires several of these habitations to contain the whole. According as the animals increase in size, the number of their tents is augmented.

"Caterpillars of another species, which Reaumur distinguishes by the appellation of the *processionary caterpillar*, live in society till their transformation into flies. These caterpillars are of the hairy kind, and are of a reddish colour. They inhabit the oak, and feed upon its leaves. When very young they have no fixed or general habitation, But, after they have acquired about one half of their natural size, they assemble together, and construct a nest sufficient to accommodate the whole. The nests of these caterpillars are attached to the trunks of the oak, and are situated sometimes near the earth, and sometimes seven or eight feet above its surface.

"As caterpillers do not engender till they arrive at the butterfly state, their associations have no respect to the rearing and education of their young. Self preservation and individual conveniency are the bonds of their union. A perfect equality reigns among them, without any distinction of sex, or even of size Each takes his share of common labor; and the whole society, which constitutes but one family, is the genuine issue of the same mother.

"The ox is a gregarious animal. When a herd of oxen are pasturing in a meadow, if a wolf makes his appearance, they instantly form themselves in battle array, and present their united horns to the enemy.—This warlike disposition often intimidates the wolf, and obliges him to retire.

"In winter, the hinds and young stags associate, and form herds, which are always more numerous in proportion to the severity of the weather. One bond of their society seems to be the advantage of mutual warmth derived from each others bodies. In spring they disperse, and the hinds conceal themselves in the

forests, where they produce their young. The young stags, however, continue together; they love to browse in company; and necessity alone forces them to separate.

"The Count de Buffon represents sheep as stupid creatures, which are incapable of defending themselves against the attacks of any rapacious animal.—He maintains that the race must long ago have been extinguished, if man had not taken them under his immediate protection. But nature has furnished every species of animated beings with weapons and arts of defence which are sufficient for individual preservation as well as for the continuation of the kind. Sheep are endowed with a strong associating principle.—When threatened with an attack, like soldiers, they form a line of battle, and boldly face the enemy.—In a natural state, the rams constitute one half of the flock. They join together and form the front.—When prepared in this manner for repelling an assault, no lion or tiger can resist their united impetuosity and force.

"A family of hogs, when in a state of natural liberty, never separate till the young have acquired strength sufficient to repel the wolf. When the wolf threatens an attack, the whole family unite their forces, and bravely defend each other.

"The wild dogs of Africa hunt in packs, and carry on a perpetual war against other rapacious animals. The jackals of Asia and Africa likewise hunt in packs.—But, though animals of this kind mutually assist each other in killing prey, individual advantage is the chief, if not the only bond of this temporary union.

"Another kind of society is observable among domestic animals. Horses and oxen, when deprived of companions of their own species, associate, and discover a visible attachment. A dog and an ox, or a dog and a cow, when placed in certain circumstances, though the species are remote, and even hostile, acquire a strong affection for each other. The same kind of association takes place between dogs and cats, between cats and birds, &c. If domestic animals had a strong aversion to one another, man could not derive so many advantages from them. Horses, oxen, sheep, &c. by browsing promiscuously together, augment and meliorate the common pasture. By living under the same roof, and feeding in common, this associating principle is strengthened and modified by habit, which often commences immediately after birth. A single horse confined in an enclosure discovers every mark of uneasiness. He becomes restless, neglects his food, and breaks through every fence, to join his companions in a neighbouring field. Oxen and cows will not fatten in the finest pasture, if they are deprived of society.

[We agree with the author of the following, that stated periodical addresses "should be confined to a particular subject." The practice of embracing a multiplicty of topics makes these productions mere ephemerals. *Ed.*]

ART. CXCV.—*Extract from an Address delivered in Charleston, before the Agricultural Society of South Carolina, at its Anniversary Meeting, Aug. 18th* 1830. By JAMES CUTHBERT.

The Anniversary of our Society having arrived, I now appear before you in the performance of a duty assigned me of addressing you. I trust that even if I disappoint you in not contributing to your edification, I shall, at all events, satisfy you that I have not been unmindful of what I owed the society, as one of its members, by exerting my best efforts to comply with your wishes.

As addresses have become one of the usages of our society, it is to be hoped, that from its perpetuity, many opportunities will be afforded to receive useful information in this way. Where a series of addresses then, are expected to be delivered, each should be confined to a particular subject which, should be treated on in the fullest manner that its nature, or the ability of the writer would admit. In the course of a few years, we should then have embodied a collection of practical facts, more extensive, more satisfactory, and more useful, than could be obtained in ten times the number of addresses, each embracing a multiplicity of topics at once.

With this impression I shall proceed to introduce, at this time, to the consideration of the society, one of the most important branches of our calling, viz: cattle stock, as a source of manure. * * *

The proportion of cattle to be kept must depend altogether altogether upon the quantity of manure a given number would yield, and the quantity that would be required to enrich a given extent of ground. It may be necessary to fix upon some quality of land as a standard which would enable us to point out, in the most satisfactory manner, the advantages of such a mode of procuring manure, and whether it could be compassed with ease by all classes of our planters. We will therefore suppose the quality of the land to be such as to require fifty cart loads of manure to the acre, which would be sufficient, one year with another, for the poorest soil we have. My own observation has satisfied me, that every head of cattle that would be constantly kept up, and properly attended to, with the view of making manure, that is, by being well supplied with water and food, and having its stall regularly littered twice a day, morning and evening, and a little swamp or pond earth occasionally added, ought to furnish, in the course of the year, at least one hundred and fifty cart loads of excellent compost manure, each cart containing from fifteen to twenty bushels. If every head of cattle, then, will supply one hundred and fifty cart loads of manure in the year, each head would be sufficient to manure three acres, this would require about thirty-three to thirty-four head for every hundred acres to be manured, or in this ratio, as the quantity be more or less.

Four carts, carrying from fifteen to twenty bushels of manure, or twenty-five bushels of trash, drawn by two small oxen, and driven by a boy between twelve and thirteen years of age, would be fully adequate to supply the yard with litter for thirty odd cows, and carry out the manure; even allowing the distance to average half a mile. But it should be distinctly understood, that they should not be employed for any other purposes.

The quantity of wood land, if the wood be thick, or marsh for furnishing vegetable matter, would be one acre, together with the offal of two acres of the field, such as corn-stalks and the like, to each animal. An acre of woodland, consisting of a thick growth of pine with a considerable undergrowth, will furnish between two and three thousand heaped-up bushel

baskets of trash or leaves in the winter, after the leaves shall have fallen, notwithstanding it had been raked the year previous.

As cattle are easy to be procured every where in the country, or at all events, are easily driven from one place to another—and as there is scarcely a settlement but possesses the advantage of most abundant materials for making compost manure, there can be no doubt but that to insure a sufficient supply of compost manure, for all purposes on a plantation, must depend alone upon the attention, care, and industry of the planter or manager. The farm yard should always be plentifully supplied with trash, and this should be turned over from time to time to hasten decomposition. It is also advisable to remove this as soon as it is perceived to be sufficiently incorporated with animal ordure, even if not wanted for immediate use, with a view to stimulate to more active exertions in filling it up again.

With regard to the expense of a manuring establishment, any arrangement on a plantation is to be considered an expense only, when it does not make a full return of interest for the amount laid out, and cover all current charges. A necessary stock of cattle then, with suitable arrangements for making manure, ought not to be regarded as an expense, but as much an investment as a rice mill, or even the lands and negroes: For a farm yard judiciously constructed and managed, would be found to be as important a piece of machinery for making a crop as any that could be erected for preparing it for market, when made: and when its real value was once well understood, would excite equal interest, and receive the same attention.

If a farm-yard, then, with all its necessary appendages be regarded as an investment, it may be proper here to give some estimate of what might be the amount repuisite to be approprinted. These would be—1st. the cost of the cattle—2d. the erection of suitable shelters for them—3d. carts for hauling manure—4th. the labour necessary in attending to the establishments, and providing for the cattle.

If we take one hundred acres as the quantity of ground to be manured, from the premises already laid down thirty-three head of cattle would be required for furnishing the manure that would be wanted, these could be obtained at a reasonable rate, say $10 per head. The thirty-three head would amount to $330.

The necessary shelter, which might be common sheds, need not cost more than $100, even under the most unfavourable circumstances; and when the materials and workmen are on the plantation, it could hardly be said to cost any thing. If the planter chooses to gratify his taste, he might make the expense what he pleases; or when other advantages are united, such as a commodious loft for stowing away perishable fodder, three times that amount would be perfectly justifiable.

The labour, or otherwise the hands that would be required to attend to, and provide for thirty-three head of cattle, would be one responsible negro man, who should be at the head of the concern, two boys between the years of ten and twelve, and the old and infirm of the gang of negroes. I would say two to every ten head of cattle, these might occasionally be asssisted by the invalids, who, though too unwell to do the ordinary work of the plantation, might be benefitted by the employment proposed.

The duties of the former (the man and the little boys) should be to feed, water and clean the cattle, litter the stalls and yard, and keep them in proper condition daily; the latter to provide for the cattle—collect trash from the woods and elsewhere—dig up the farm-yard, and free the plantation from weeds, and other nuisances. I must not be understood as meaning to say, that one man would be required for every thirty odd head of cattle, for, with any character or capability, one, with due assistance from boys, would be able to superintend an hundred head or more.

The value of the above enumerated slaves would be as follows—

The fellow as superintendent,	$400	
Six old infirm hands, $200 each,	1200	
Four boys for carts, $300 each,	1200	
Two boys employed with fellow, $200 each, - - -	400	
		3,200
To this add for the cattle, -	330	
Sheds for the same, - -	100	
Four carts at $35 each, - -	140	
		570
		$3,770

I am aware of the effect that the idea of employing a dozen negroes, alone in feeding cattle, or of investing $3,770 in an establishment for making manure, will have upon the generality of our planters, on the first view of the subject. However, let them reflect for a moment and, compare the interest of such an amount, or the hire of the negroes, or the probable value of their labour, with the profits that could seldom fail to arise from such an investment; and let them keep in mind, that a very trifling part of this sum is to be made up out of their incomes, that it is the mere setting apart a comparitively unproductive portion of a capital they already possess, to be more profitably engaged, and they must soon become convinced, not only of the reasonableness, but of the excellence of the plan.

To prove the importance of such an appropriation, we must show that there is no way in which this amount could be employed by us, as agriculturists, to the same advantage. The interest on the supposed value of the negroes, $3,200, would be $224. The hire of twelve negroes, such as described at $30 each, per ann. would be liberal, this would give $360. In field work, it would be presumed the five boys would be too young to contribute much, consequently, there would be but seven hands employed. Now a crop of thirty barrels of rice, or six bales of cotton, one year with another, to such inferior hands, could not be considered too low a calculation. The amount from the labour of these hands then, at the present prices would hardly exceed $400. Suppose then, that a planter cultivated corn alone, I would ask, if his lands had been long under cultivation, without the aid of manure, what difference would he expect in the yield of two acres, one of which had had fifty cart loads of the best compost manure applied to it, and the other none at all? I would be willing to answer for him, ten bushels at least, the first year, and ten added to that the year following, and even ten added to that the succeeding one. However, allowing that twenty bushels, one year with another, would be the difference between manured and unmanured land, what would be the result? A planter cultivating one hundred acres of corn, without manure, realizes ten bushels to the acre,

which gives one thousand bushels as his crop. Another year he manures at the rate of fifty cart loads to the acre, and gets thirty bushels to the acre, which gives him three thousand bushels, as his crop. Now the difference between the two crops would be two thousand bushels. These two thousand bushels at the rate of 60 cents per bushel, which is lower than our flint corn has generally sold for, would give $1200. Here, then, would be $800 clear gain, over the most favourable employment of the hands.

These calculations, of course, apply equally to cotton planters, and sufficiently so to tide swamp planters, to claim their particular attention; for though they might deem it inexpedient to manure their river lands, still it is a great object with them to make a sufficiency of corn, peas or potatoes, for the provisions of their plantations: and certainly, the more they make of either of these crops to the acre, the less quantity of land they need cultivate in them; and all the labour deducted from the corn, &c. would be added to the rice—and this the most efficient labour of the plantation.

The setting apart a distinct class of persons to take charge of a cattle establishment for the purpose of making manure, is essential, in order to insure a proper support to the cattle, and a sufficient accumulation of manure in due time—as the cattle are not to be pastured, but constantly kept up, unless turned out for a short time, every day, for exercise, which should be the case, food and water must be carefully provided for them, and given to them at appointed times. A system of manuring also, requires much exactness in the employment of time and labour. The process of making manure should be going on the whole year, so that a sufficient quantity should always be prepared to be carried out into the fields before the time for planting arrives. Of this, the ordinary occupation of the plantation would not admit. There would always be conflicting duties, which would eternally embarrass—and it is this which has occasioned the difficulties that planters have experienced in manuring, and been willing to yield to. It is out of the question for any planter, however intelligent or industrious he may be, to manure any thing like the quantity of land he would require for his force of hands, according to the usual mode of conducting plantation business.

The only objections which might be urged to the plan proposed, by those who have never turned their attention particularly to the subject, are that it would occasion too much trouble, and that a concern of the kind could not be conducted on a plantation by negroes, unless under the constant eye of the master. I will venture to assert, that any planter of the least method, who would try the experiment, would find things to turn out very differently from what he had anticipated. The beginning of the business would be the only troublesome and difficult part. It would soon be carried on with as much attention and success, as any other department. The true secret is, to make it at once a distinct and separate concern, and one worthy of attention. Abandon the abominable practice of penning cattle here, there, and every where, exposed to all kinds of weather, merely to save the trouble of a little additional carting: and convince those who have charge of the cattle, that they are held in some estimation by the pains taken in providing for them, and an interest would be soon excited throughout the whole plantation, that would insure the best treatment. The idea that negroes are too stupid and unprincipled to conduct matters of this kind, when left to themselves, is a very mistaken one. If we would take more pains to impart to them our views of things, and instead of merely directing, also encourage and patiently instruct them, they would be found to be very capable of comprehending and executing our wishes. But the misfortune is, that whenever we undertake to introduce any thing new into our system of management, we are apt to be too off-hand in doing it, and the least disappointment discourages.

ART. CXCVI.—*Notice of a Report of the New-York Horticultural Society, on the subject of Premiums for destroying Insects.*

In the "Report of the Committee of the New-York Horticultural Society on the proposition of the Pennsylvania Horticultural Society, respecting a premium for destroying insects;" It is there stated and acknowledged, that "the ravages committed by these minute, though powerful foes, will sometimes utterly destroy the produce of a whole season, in other respects the most favourable, and thus occasion the most serious loss to the cultivator." The magnitude of the evil was therefore apparent to the committee, but they doubted the efficacy of the plan proposed by the Pennsylvania Horticultural Society. Undoubtedly it was the purpose of this last mentioned society particularly to draw the attention of all Horticultural Societies to the *one insect*, the Curculio, for it was particularly for this object that they proposed a premium. The ravages of other insects are, to the agriculturist, serious enough, but these belong to their province. The insects which puncture the bark and root of fruit and ornamental trees, such as the peach worm (Egesia exitesia) the insect which produces a black, warty excrescence on plum and cherry trees, (called by Mr. Say, the Cryptorhyneus nenuphar) are fast disappearing from every decent man's orchard, for the larvæ of these insects are stationary, visible and within our reach. They are, however but as dust in the balance, compared to the mischief and ravages of the curculio or fruit bug.

As to the caterpillar, I feel almost ashamed to speak of them in the light of a nuisance to orchardists, because they are the easiest things in the world to destroy. One man, an hour before sun rise, or immediately after a shower, will in one week, destroy the nests of all the caterpillars that can be found, in a season propitious to their increase, on eight thousand trees. This I know to be true.

If a single bird, or as the New-York committee express themselves, "an individual of the feathered race," which they say, "can effect more than what can be accomplished by the utmost stretch of human power," why do not the countless numbers of birds which inhabit the orchards of those farmers who never allow a gun to be heard on their premises,—why do they not, in return for the quiet they enjoy, relieve his trees from caterpillars? The truth is this—birds never, under any emergency, prey upon these horny, hairy, slimy caterpillars. I have known them to abandon their nest, when the tree has been polluted by them, and rather than do this, so

strong is their attachment to their offspring, even before they are hatched, they would certainly prefer to destroy these vermin, if it were not so repugnant to their instincts.

Those, therefore, who so strenuously recommend poultry and birds for the extermination of the curculio and caterpillar, talk of what they do not understand. Barnyard poultry can get at but few of the grubs, or larvæ of insects, because their instinct impels them to secrete themselves below the reach of such assaults. In a soft, moist soil, the fowls scratch about and pick up ground worms and such small chrysalids and seeds as lie near the surface; but this does not amount to much, for the field of action is confined to favourable spots, always in broad, sunny places,—never under the shade of trees, and when they do go there, it is to retreat from excessive heat. I have carefully watched their operations, and I know that a hen rarely leads her young under trees which are bare of weeds and grass, (as all orchard trees should be) to search for food.

To agriculturists, who generally have but small kitchen gardens, well enclosed by a paling fence, poultry can be very servicable, for they destroy a great number of grasshoppers, crickets and field butterflies. But to the horticulturist, I say it again, they are *positively* injurious, and indeed useless, for as the horticulturist raises no grain nor grass, he does not fear the ravages of the cricket or grass-hopper, insects that only harbour among weeds and grasses. I am as fond of seeing poultry on a farm us any one, and if I consulted my own pleasure I would never allow a bird to be destroyed; but I am now advocating the extensively beneficial scheme of providing cheap and delicious fruits for the young and the aged, the sick and the poor, as well as to insure profit to the orchardist. How can I accomplish this, unless I can root out ignorant prejudice and false sensibilities?

I have upwards of one hundred cherry-trees of the finest varieties, but I never think of getting any of the fruit, for the birds and the curculio carry off and destroy it all, and in districts where the curculio is never seen, birds devour all the fine cherries. They likewise strike their bills into the ripe peaches, thus making an opening for wasps and ants, who quickly demolish the fruit, which but for the first puncture would have been safe from their attack. Birds are as fond of grapes as of cherries, and if they are not disturbed, they will soon eat up all the early kinds, and gardeners know how difficult it is to prevent them from destroying lettuce seeds, and other small seeds. They are very destructive to bees,—the cat-bird, the martin, the blue jay, and king bird will stand in a convenient place in an apiary, and devour bees by the dozen; and the worst of it is that many of the destructive insects, which might fall a pray to the voracity of birds, only make their appearance at night, when the birds are at rest.

Horticulturists, and, above all, those who have formed themselves into a society for the especial purpose of advancing the interests of horticulture, should direct all their efforts to the destruction of those insects and birds which destroy flowers, vegetables, trees, and fruit, and leave it to the agricultural societies to guard their craft from the depredations of those birds and insects which commit such havoc upon the grain, grasses, and cattle. These two societies are very distinct in their natures and purposes, but from the want of an exact knowledge of what properly belongs to each one, they are constantly infringing on each other's peculiar pursuits; thus rendering their respective labours more complex. It is from not exactly attending to the definitions of these two terms,—agriculture and horticulture,—that the New-York committee have diverged as they did, when the curculio was under discussion.—But we must not be deterred, at least from making the attempt to exterminate this destructive insect, because we are told there "are so many different species of insects which infest our fruit trees, and their modes of attack are so multifarious, that if possibly a preventive could be found which would apply to one race of these destroyers, there would still remain thousands of others, equally formidable and destructive."

With the weevil, the Hessian fly, rats and mice, and other grain and grass destroying insects and animals, the committee had nothing to do; it is not their province to meddle with the concerns of the agriculturists; but if their arguments were not contrary to the rules of common sense, the ardour of all those who raise fruit for pleasure or profit would be completely destroyed. Speaking of the insects which are so destructive to whole fields of grain, and to the sugar cane, the committee say that "the evil has passed away rather by the operation of natural means, such as change of weather, frost, or the like; human efforts having been found unavailing." I can tell the committee that if it had not been for "human efforts," the peach, plum and cherry would no longer be seen in our country. It is entirely owing to the perseverance and skill of a few determined horticulturists, that the insects injurious to those trees were identified and destroyed. They know better than to trust to the small chance of relief from the silent operations of nature. They cut out the excrescences from the limbs, and the worm from the roots, with their own hands, and thus gave us back those delicious fruits again. They soon found that the existence of the fruit and tree destroying insect, was not dependent on the vicissitudes of the weather; and as to the other remark of the committee, that "it is only at certain seasons, not of frequent occurrence, that we have to sustain any very serious losses of our fruit by the ravages of insects," this is likewise an error. There is no season when every species of fruit is cut off by natural causes, and, consequently, if only one kind is left, there is enough to raise a stock of curculios for the destruction of thousands of bushels of fruit the next season. The chestnuts at this present moment, in the district to which I belong, are but few in number, and are unfit to eat, owing to the larvæ of the curculio. *At all seasons, therefore*, if the frost has not destroyed the fruits, the fruit bug never fails to puncture the apple, plum, cherry, quince, apricot and nectarine. I never knew them less destructive in one season than in another; but if we only reason from observations which are confined to the boundaries of a city, then we understand why it is that in certain seasons only, the fruit is cut off by the curculio. This insect, which a few years ago was entirely unknown to the north of Albany, is now making its appearance there too, and if we search the files of the American Farmer, we will perceive that it has spread far and wide over the United States.

I should not have gone so much in detail, if you had not requested me to do so. I shall now close my re-

marks with thanks to the Pennsylvania and the Massachusetts horticultural societies, for the prompt attention they have given to the subject, and for their liberal donations towards the premiums.

Remarks by the Editor of N. Y. Farmer.—The above, sent to us by a highly respectable physician of Philadelphia, is part of an article on the Curculio, published in the National Gazette. The writer is a "patriotic lady of New Jersey." The report to which she refers, is at page 119 of our present volume.

ART. CXCVII.—*Of curing Pork and Bacon.*

The curing or pickling of pork is carried on to a considerable extent at many of our sea-ports. The carcase is cut in pieces, and packed in casks or kits, made for the purpose, containing from one to two hundred weight. Salt is dissolved in water till the mixture be strong enough to swim an egg; it is then boiled, and, when cold, poured upon the pork: when the end of the cask is fixed in, the article is ready for being sent to market. Henderson, a late writer, has given particular directions for the curing of bacon, founded upon a long course of experience, which, therefore, deserves to be more generally known.

The curing of bacon is thus described by Henderson, after much experience. After the carcase has hung all night, lay it upon a strong table, or bench, upon its back; cut off the head close by the ears, and cut the hinder feet so far below the hough as will not disfigure the hams, and leave plenty of room to hang them by; then take a cleaving knife, and if necessary, a hand mallet, and divide the carcase up the middle of the back bone, laying it in two equal halves: then cut the ham from the side by the second joint of the back bone, which will appear on dividing the carcase; then dress the ham, by paring a little off the flank or skinny part, so as to shape it with a half round point, clearing off any top fat that may appear; the curer will next take off the sharp edge along the back bone with his knife and mallet, and slice off the first rib next the shoulder, where he will perceive a bloody vein, which he must take out, for if it is left in, that part is apt to spoil. The corners must be squared off where the ham was cut out.

In killing a number of swine, what sides you may have dressed the first day, lay upon some flags or boards, piling them up across each other, and giving each pitch a powdering of saltpetre, and then covering it with salt: proceed in the same manner with the hams, by themselves, and do not omit giving them a little saltpetre, as it opens the pores of the flesh to receive the salt, and besides, gives the ham a pleasant flavor, and makes it more juicy. Let them lie in this state about a week, then turn those on the top undermost, giving them a fresh salting: after lying two or three weeks longer, they may be hung up to dry in some chimney, or smoke house; or, if the curer chooses, he may turn them over again without giving them any more salt, in which state they may lie for a month or two without catching any harm, until he has convenience for drying them. Henderson practised for many years the custom of carting his flitches and hams through the country to farm houses, and used to hang them in their chimnies, and other parts of the house to dry, some seasons, to the amount of five hundred carcases: this plan he soon found was attended with a number of inconveniences, and therefore he invented a smoking house.

Henderson's smoking house is about twelve feet square, and the walls about seven feet high: one of these huts require six joists across, one close to each wall, the other four laid asunder, at proper distances. To receive five rows of flitches, they must be laid on the top of the wall; a piece of wood strong enough to bear the weight of one flitch of bacon, must be fixed across the belly end of the flitch, by two strings, as the neck end must hang downwards: the piece of wood must be longer than the flitch is wide, so that each end may rest upon a beam; they may be put so near to each other as not to touch; the width of it will hold twenty-four flitches in a row, and there will be five rows, which will contain one hundred and twenty flitches; as many hams may be hung at the same time above the flitches contrived in the best manner we can. The lower end of the flitches will be within two and a half or three feet of the floor, which must be covered five or six inches thick with saw-dust, and must be kindled at two different sides; it will burn, but not cause any flame to injure the bacon. The door must be kept close, and the hut must have a small hole in the roof, so that part of the smoke may ascend. That lot of bacon and hams will be ready to pack up in a hogshead, to send off in eight or ten days, or a little longer, if required, with very little loss of weight. After the bacon is salted, it may lay in the salt house as described, until an order is received, then immediately hang it up to dry. Henderson found this smoke house to be a great saving, not only in the expense and trouble of employing men to cart and hang it through the country, but it did not lose nearly so much weight by this process.—*Louden's Ency.*

ART. CXCVIII.—*Some Account of a large Vine at Sellwood Park, the seat of Michie Forbes, Esq., Sunning Hill, Berkshire.* By Mr. H. CUMMING, Gardener to Mr. Forbes.

SIR,

The large Black Hamburgh Vine at this place, was brought from Sion Hill gardens, then the Duke of Marlborough's, in 1810. It was then a small plant, which had been struck that season from an eye, and it was planted in Sellwood Park garden in 1811. For the first year or two nothing very remarkable was noticed in its growth, more than that it had a very healthy appearance. About the fourth or fifth year after planting, it had nearly filled the small house it was in. The house was then lengthened 20 feet, and in about two years afterwards it had nearly supplied it with strong healthy bearing wood. The house was then again, and has been since, lengthened. The present length of the house is about 90 ft., breadth 13 ft.; number of bunches on the vine 1,100: and it is intended to have the house lengthened 36 ft. more next autumn. To show the vigour of this remarkabe young vine, I may mention that, when three years ago the house was lengthened an additional 35 ft., the second year afterwards the shoots reached to the end of it. It is a remarkably good bearer, producing a fine large dark berry, of an excellent flavour. Many of the bunches weigh upwards of 2 lbs.; some cut last

year almost 2½ lbs. It stands nearly in the centre of the house. It has a beautiful straight stem, upwards of 6 ft. in height; and then branches off each way, horizontally, with nine principal leading shoots.

The mode of training, and fine, healthy, strong appearance of the vine, together with the excellent crop of grapes which it produces every year, excite the admiration of every gentleman and gardener who comes here; and the vine on the whole, is allowed by them to surpass that at Hampton Court, or any other vine in the country. Its roots may be said to be both in and out of the house; as it is planted inside, but, the front wall being on arches, many of the roots are in the old asparagus beds in front. We have already begun to remove these, and shall continue to do so yearly, till our young beds, which have been lately planted, come into bearing; as we purpose to devote that piece of ground entirely to the nourishment of the vine.

With the permission of Mr. Forbes, I have sent you a small sample of grapes, and I can assure you that the bunches were not picked, but cut from one part of the vine, and not 2 ft. from each other.

I remain, Sir, &c.

H. Cummings.

Sellwood Park, Oct. 21, 1829.

The berries were large, dark, of excellent flavour, and the bunches weighing from half a pound to a pound and a half.—*Louden.*

Art. CXCIX—*Proceedings of the Inspecting Committee of the N. York Horticultural Society.* [Continued from page 168.]

July 27. Mr. Oakley presented some French sweet Peaches.

Mr. Day, a very large apricot.

Mr. Floy, Bignonia grandiflora, Magnolia cordata, and others.

Mr. E. H. Warner, 19 Apricots.

August 3*d.*—Mr. Wade exhibited some very fine Apricots.

Mr. Cooke, Phlox paniculata, Chinese roses, and other flowers.

Mr. Wilson, a most splendid Boquet of flowers, six feet high and nine feet in circumference Also an Egg Plant, weighing 3 lbs. 6 oz.

Dr. Gilman, Cape Jasmine.

Mr. Coady, from Com. Chauncey's garden at the Navy yard, Brooklyn, a quantity of Lima beans fit for the table, Egg Plants each weighing 2 lbs. 6 oz., White do., and a quantity of ripe Tomatoes.

August 10*th.*—Mr. Neale presented from the garden of Mr. Kennersley, a beautiful collection of balsamines, the seed of which Mr. K. brought from England two years ago.

August 24*th.*—Mr. Still presented one Egg Plant, weighing 5 lbs. 8 oz., one do. 4 lbs. 1 oz., and six heads of blanched Succory.

Mr. Oakley, three kinds of Peaches, and some fine Bolmar Plums.

Mr. Morell, three fine Musk Melons.

Mr. J. Law, two do.

August. 31*st.*—A letter was received from Dr. Mitchill, containing plants from Campeachy, among them was the Hennequin, the leaves of which yield the Sisal Hemp; seeds of the same plant, of Logwood, &c, &c.

Sept. 7*th.*—(See page 207.)

Sept. 14*th.*—Mr. Groshon presented some fine seedling Lemon Cling Peaches, six weighed 26 ozs.

Mr. Mc Brair, fine seedling Peaches, four weighed 1 lb.

Mr. Smith, Bergamot Pears, brown spice do., seedling Apples, and ripe large Filberts.

Mr. Cooke, Isabella Grapes.

Sept. 21*st.*—Mr. Oakley exhibited from the garden of Simeon Van Beuren, two yellow seedling Peaches, measuring 9⅞ inches, and weighing 8½ and 7½ ozs.

Mr. N. Saltus, five large and fine Peaches, measuring 10 inches, and weighing 9. oz., 9. oz. 2. dwts., 8. oz. 2. dwts., 7. oz. 13. dwts., and 7. oz. 13. dwts.

Mr. Geo. Still, two summer Squashes—Vegetable Marrow.

Sept. 28*th.*—Mr. Dyson presented some beautiful Golden Nectarines, weighing each 2. oz. 17. dwts., 2. oz. 10 dwts., and 2. oz. 11. dwts.

Mr. Oakley, from Mr. J. P. Roome, Bedford St., some very excellent seedling Peaches, yellow flesh, and from Mr. John Gott, Albany, good Isabella Grapes.

Mr. Saltus, ripe Peaches from a tree in Stone St., the same as exhibited the preceding meeting.

October, 5*th.*—Mr. Jones presented a Pear, raised by Mr. Livingston of Louisianna, at Montgomery, measuring round the stem 17¾ inches—round the body 14 inches, and weighing 1. lb. 14. oz.

Mr. Cooke, specimens of the Apple Quince, do. of Pear Quince.

Mr. Melick, fine Isabella Grapes.

Oct. 19*th.*—A communication was received through Messrs. G. Thorburn and Sons, from H. Corse Esq. of Montreal, accompanied with beautiful specimens of eight kinds of Apples grown in Canada; viz. Bourassa, one of the best Canadian winter apples; Autumn Calville, rather past its prime; Indian Prince, a new seedling, large, deep red; Keswick Codlin, a fine cooking apple; Orange Rénette, a new seedling, and a fine keeping apple, and one of the most beautiful: Fameuse or Pomme de Neige; Golden Rénette, an English Fall apple; English Rénette.

Mr. Cooke, a branch of the Pound Pear tree, measuring six inches in length, and bearing six pears, weighing 4 lb. 11 oz.

Mr. Combault, a quantity of very fine Isabella Grapes.

J. I. Palmer, from the garden of Mrs. Given at Westchester, two heads of Cape Broccoli, weighing 5 lbs. 2 oz. and 7 lbs. 12 oz.

Oct. 26*th.*—Presented by Mr. Hyslop, from the garden of N. Prime Esq., three bunches Black Hamburgh Grapes, grown under glass, weighed 19½ ozs. 24 ozs. and 18 ozs.

Mr. Law, 1 Cauliflower weighing 2 lbs. 15 ozs. 2 Egg Plants weighing 4 lbs. 2 ozs. and 4 lbs. 3 ozs.

Mr. Cook, 6 Winter Pears weighing 8 lbs.

Mr. Neale, from Mr. Kennersly, a Curocoa Gourd, 5 feet 1½ inches long, and 15 inches in circumference.

Mr. S. Morrow, four very large Beets.

Mr. R. T. Reach, one do. smaller.

A simple diet, and moderation in eating, promote the health of the body, and give cheerfulnes to the mind.

ART. CC.—*Festival of the New-York Horticultural Society.*

For the want of sufficient space in our last number, we resume the notice of the anniversary celebration.

We know not of a more pleasing and rich display of the productions of nature, than is afforded in tables tastefully covered with a great variety of our most delicious fruit. The delicate and the vivid of every hue and colour are seen.—The two most powerful senses, the sight and the taste, have their full of fruition; the former in actual enjoyment, and the latter in anticipation—a state the most favourable for emotion. To behold an exhibition of the Creator's goodness, and to encourage an institution which is throwing in its mite to ameliorate the condition of mankind, every citizen should visit the anniversary table of the society.

These public exhibitions are the most effectual means for the diffusion of a taste for horticultural productions; and the more the ladies can become directly interested in them the greater will be their benefits; for the science and pursuit of horticulture is too pleasing and ennobling to leave them uninvited to our bowers and parterres. The comfort and enjoyment of every class of our citizens are promoted by these public displays of the rich productions of our soil.—Both the poor and the rich every year find their tables furnished with a greater variety of esculents and fruits of improved flavor. The man of cultivated mind sees the evidences of a taste for the most delicate and beautiful of nature's productions, in every walk he takes, and in almost every house he enters. The philanthropist and the patriot see in the vine that clings to the wall, and in the trees of choice fruit every where spreading their luxuriant branches, indications of increasing comfort and growing attachment to sweet home. The seedman, florist, nurseryman, and market gardener, are much, though indirectly indebted to these public exhibitions for the encouragement they receive. We hesitate not to express our opinion that the horticultural society does more for the practical horticulturists in this vicinity, in bringing their establishments into notice, and in diffusing a taste for the articles of their trade, than all the means they individually use.

The address, which we publish in this number, was delivered by Mr. Halsey. The saloon was handsomely and tastefully decorated with vines, festoons of flowers, and pyramids of fruit.

The following are the regular toasts, with some of the volunteers:—

REGULAR TOASTS.

1. The day we celebrate—May success attend the efforts of our Gardeners.
2. The land we live in—The favored soil of native and exotic plants.
3. The President of the United States.
4. The Army and Navy of the United States.
5. The State of New-York—A noble garden, yielding the fruits of liberty, virtue, and science.
6. Our form of Government—Planted in the affections of the people, and protecting them from the storms of anarchy, and blight of despotism.
7. The Freedom of the Press—There is no freedom without it.
8. The farm, the shuttle, and the ship—Equal protection to each.
9. Horticultural Societies throughout the world—May they continue to develope the bounties of Divine Providence, and enjoy the fruits of their labour.
10. Industry temperance, and frugality—The handmaids of our art.
11. Botany—"The natural study of mankind."
12. General Lafayette—A friend in need. His whole life has been devoted to the improvement of the condition of his fellow creatures.
13. The Fair—The choicest flowers of the garden are their emblem.

VOLUNTERR TOASTS.

By the Mayor. The culture of fruits, plants, and flowers—May the delightsome task be ever honored by the sons and daughters of the republic.

Com. Chauncey. The memory of De Witt Clinton, late Governor of the State of New-York.

Major Garret, of the British Army. Happiness and prosperity to the city of New-York.

Mr. Bacon, on behalf of the Albany Horticultural Society. The New-York Horticultural Society.—We are a *scion* taken from the parent *stock*—as the *stock* thrives, so will the *scion* flourish.—May both grow under the genial influence of public favor.

Judge Buel, the President of the Albany Horticultural Society, sent by him. Horticultural improvement—While it asks no monopoly, may its rewards be as liberal as its blessings are diffusive.

Dr. Francis. The farmer of La Grange—called from his plough to direct the energies of his countrymen.

Dr. Pascalis. The memory of the brave citizens of Paris—May their recent victory produce the fruits of liberty, peace and justice.

By Alderman Strong. Intolerance—The most noxious weed that encumbers the Paradise of social, polical, or religious happiness—may the religious professor disown it, the politician uproot it, and the social circle banish it.

Mr. Justice Wyman. The example of Dioclesian—He resigned the throne of the Cæsars, for the quiet enjoyments of the garden.

Thomas Dixon, Esq. Dr. Hosack.—Patron of this Society.

The Hon. Campbell P. White. The memory of Martin Hoffman, late President of this Society.

Jacob Lorillard, President. (After the Orator had retired) The Orator of the day.

Charles Oakley, Esq. Vice President. Horticultural Societies—May their patrons continue to increase in the ratio of an hundred fold.

J. Lorillard, Esq. President. (After Mr. Hone had retired.) Philip Hone, Esq. Vice President of this Society.

Richard Hatfield, Esq. Our sister Horticultural Societies—Sisters of the same family, living without envy, and rejoicing in the number and zeal of each others lovers.

Col. W. L. Morris. Horticulture—Let it take root in every sea port of our country, and its products, foreign and domestic, will be readily disseminated through the interior.

George W. Arnold. The American Fair—The fairest flowers of the Garden.—May they never be permitted to waste their sweetness on the desert air.

J. W. Bell. This day—The 73d anniversary of the birth of that ever consistent patriot, General La-Fayette.

Benjamin Poor. The Farmer and Horticulturist of La Grange, who, after assisting our ancestors to defend the Nursery of Freedom, sowed seeds of the same kind in France, which he now lives to see bearing fruit abundantly.

ART. CCI.—*Variety and uses of the Hickory. Juglans.* Lin.

There are few vegetable productions of any country which unite so many valuable properties as our walnuts and hickories. Entering, as they do, so largely into the composition of our woods and forests, they contribute to adorn our landscape scenery, supply us with a delicate condiment in their fruit, and from the solidity, pliability, and other good qualities of their wood, they add very essentially to our domestic comfort, and furnish a material of the highest utility in various arts and manufactures. The prodigality with which it has been applied to these various purposes, has had the effect of rendering the abundant stores of these valuable trees comparatively scarce of late years, as might be expected, and we may have ere long to lament the total extermination of most of the kinds, unless some means are resorted to of reproducing them, or a greater degree of economy should be employed in their consumption.

The walnuts and hickories, although in the system of natural history, formerly united in one family, present two very distinct groups, differing in the quality of their timber as well as that of their fruits.

The *Black Walnut*, Juglans nigra, is one of our largest forest trees, extending from the New-England states to Florida. In situations most congenial to it, as along the banks of the Ohio, it attains a size truly gigantic. It has been found with its trunk of the enormous diameter of nine feet. Standing isolated, as it sometimes does, in these situations, its branches extend horizontally and give the tree, a most magnificent and venerable appearance. The fruit of the Black Walnut is very agreeable, and if cultivated might be made to rival the European Walnut. Its wood renders it particularly valuable for many uses—the grain, being fine and compact, admits of a beautiful polish, so that it is highly serviceable in cabinet making, for various articles of furniture. It is extensively used for the stocks of muskets, being strong and light. In ship building, if well seasoned, it is highly valuable for knees, floor timbers, and in parts of the frame work. Woollen stuffs are dyed from the juice of the husk of the fruit.

The *Butter nut*, J. cinera, grows also to a great magnitude, though it is better adapted to a cold climate than the last. Near our city, and farther north, it attains to a great size, and thrives better in poor, rocky lands, than the Black walnut. The fruit is of an oily nature, though in its fresh state agreeably tasted, but becomes rancid after a time. The timber is soft, light, and of little strength, but it does not readily split, it is much employed in the manufacture of corn shovels, dishes, and bowls, and in some places, as at Windsor, Vermont, it is used for the pannels of coaches and chaises, for which purpose it is considered as particularly adapted from its lightness and its taking paint in a superior manner. It is also much employed in the country in making fences. Butter nut bark is often used as a cathartic, and is recommended by eminent physicians for that purpose. The bark is boiled in water till the liquid is reduced by evaporation to a thick viscid substance. Its cathartic properties are said to be always sure, and to produce no pain or irritation.

Of the Hickories, the first for the excellence of its fruit is the *Pacan nut*, J. olivæ formis, of Louisiana, from whence great quantities of this delicious nut are yearly sent to our market. The tree is highly ornamental, with a straight trunk, elevated to 60 or 80 feet. Its wood, however, is coarse grained, heavy and compact, very strong and durable, but inferior to many others. The nut, which is of the shape of an olive, is superior in the delicacy of its flavour to any of the nut kind, and are exported in great quantities to various parts of the United States, and to the West Indies.

The next in degree to the Pacan nut in the quality of its nut, is the *shell-bark Hickory*, J. alba, or as it is sometime called in the vicinity of our city, *Kisky Thomas nut.* The excellence of its fruit has caused it to be spared in cleared lands. It derives its popular name from the peculiarity of its exterior bark, dividing into long narrow plates bending outward towards the ends, and adhering only in the middle. Its wood is strong, elastic and tenacious, and is in high and deserved repute, for its superiority over all other kinds of hickory for the purpose of fuel. It splits very easily, and is used for making baskets, whip handles, and occasionally in ship building, for the keels of vessels. It soon decays, however, where exposed to dryness and moisture, and is moreover liable to the attack of worms. The fruit is small and the shell thin, and the kernel is very sweet and well flavored. It forms also a considerable article of exportation.

The *thick shell-bark Hickory*, J. sulcata, resembles the last, and grows like it to great extent, and the bark is also torn lengthwise in long, loose fragments. It principally abounds in the bottom lands along the Ohio, and is rare in the districts east of the Alleghany. The nut is very large and the kernel sweet and tender, though the shell is very thick. It is inferior in quality to the fruit of the last species. The wood is very similar to the preceeding, so that it is applied to similar purposes.

The *Pig nut Hickory*, J. porcina, is one of the largest trees in the United States, and is abundant along the Atlantic states. Its nut is very small, and the shell so hard and thick, as to render it of no value.—The kernel is very sweet, but from its small size and difficulty of extraction from its thick envelope, it is considered as worthless for the use of the table. The wood, however, is extremely valuable, as it is considered by manufacturers to be the hardest of the hickory tribe, and strongest, and is much in request for axe handles, and such other uses as require great strength and tenacity.

The *Mocker-nut Hickory*, J. tomentosa, is a tree of slow growth, and does not attain a very great size, flourishing best in rich soils. The fruit, though large, is undervalued, on account of the extreme thickness of its shell, and the smallness of its kernel, which is very sweet. The wood makes excellent fuel, particularly when the trees are of small or middling size. At this stage of its growth when the heart is not ripened to its usual red colour. It is called *white-heart Hickory*, and is preferred by many to all other kinds.—

It appears to be particularly liable to the attacks of worms.

The *Bitternut Hickory, or Swamp Hickory*, J. amara, is a lofty tree in some situations where the soil is good and watered by creeks or rivers. It bears a plentiful crop of fruit. The shell is very thin, but the kernel is intensely bitter, of no use as food to any animal; but an oil can be extracted from it which might be useful in the arts or for the lamp. Its wood is inferior to other northern species.

The *Water Bitter nut Hickory*, J. aquatica, is often confounded with the last, growing in swamps and rice fields, in the Southern states. The fruit, also, is extremely bitter, and the wood inferior in quality. The *Nutmeg Hickory*, which is so called by Michaux, is but little known either in its range, or the properties of its timber; the nuts are very hard and of little value.

The *European Walnut*, J. regia, or as it is sometimes called the *Madeira nut*, is occasionally cultivated in our neighborhood for its delicious fruit, which is very large and the shell very light and brittle. This tree is a native of Asia, there being no Walnut or Hickories indigenous to Europe, but this species has, particularly in the southern and western parts of that continent, been cultivated from time immemorial. It is an extremely beautiful tree, and affords a thick shade. The nuts are before all others, except our Pacan nut, in their flavour, and have long afforded an extensive article in commerce. The oil which is expressed from the kernel, is considered of great importance for painting, and is used in the finer kinds of copperplate printing.

The various uses to which the Hickory is adapted under all the species, are more or less valuable. Tho' they differ in the degree of their excellence, yet when compared with other trees, there are certain important ends for which they are superior to all other kinds of wood. It is much used for screws, cogs of mill wheels, rake teeth, flails for thrashing grain, bows of yokes, and handspikes, for which it is particularly well adapted, and is exported in large quantities for that purpose.—Hoops for casks and barrels are always made with us of the young Hickory, and it is beyond calculation what quantities are consumed for this object, and for exportation. In Europe the same purpose is effected with the young chesnut which is far inferior to the hickory, since it requires to be bound at the ends, whereas our hoops are perfectly secured by a notch at each end, and adhere firmly when crossed. For fuel there is no wood which approaches it, and the unlimited consumption of it for this purpose, together with the destruction of the young saplings for hoops, is rapidly causing its extermination. Very little attention, as yet, has been paid in cultivating it, though for the sake of preserving its timber, and the excellence of its fruit, it deserves the care of proprietors of lands.—They can easily be raised from the seed, but it is necessary to plant the nuts while fresh, and soon after they have fallen from the tree, they otherwise lose their power of germination. It is very difficult to increase them by transplantation, as they seldom survive their removal.—*Mag. of Useful Knowledge.*

Remarks.—The consumption of Hickory for fuel and hoops does not "*rapidly* cause its extermination," as young sprouts grow from the stumps. Cutting off is quite a different thing from clearing up wood lands.

ART. CCII.—*Miscellaneous—Original and Selected.*

Satin Beaver Hats.—Among the first premiums given at the late Fair of the American Institute of this city, was one for gentlemen's black silk hats, manufactured by Mr. Thomas Simms, No. 59 Canal Street. His improvements consist principally in making them on fur bodies as a substitute for paste board. They are made water proof, extremely light, and are found to be more durable than fur hats, and to retain their high glossy color unaffected even by frequent exposure to salt water. A silk hat of five dollars will compare well with one of ten made of beaver. The subject is important from the facts that it is an additional encouragement to those who have already planted mulberry trees, and initiated themselves in the management of the silk-worm.

New American Camellias.—We are informed that the new Camellias, *Clintonia*, and *Hosackia*, of which cuts and descriptions were given in our Numbers for December 1829, and January 1830, will be for sale to subscribers in March next; the former at 20 dollars, and the latter at 25 dollars a plant, the earliest subscribers to have the first choice. They are for sale by Michael Floy, Broadway near 12th street, New-York. A few plants of each kind only have been raised as yet—The originals will flower this winter.

Sour Coagulated Milk sweetened with sugar is a very pleasant and wholesome drink, particularly in summer.

Fried Apples.—There is scarcely a more pleasant and wholesome vegetable dish than apples cut up, without paring. into thin slices and fried. A little water is sometimes put with them.

Crops in Pennsylvania.—Mr. FLEET,—We have lately finished housing our winter grain in this part of Penn.; and a more abundant crop has perhaps not heretofore been raised, in highly manured grounds; in fact it was too rank, being much lodged, wheat in particular; grass has brought also much above an average crop of hay. The almost continual rains in the spring, were less favourable for barley, which has in consequence remained rather short in straw. Oats abundant, but being much lodged will probably be rather light. Corn is very promising. Of fruits, apples will be about midling, pears we have none worth noticing, cherries were plenty, plums, apricots, &c. are as usual in most situations in the country, *all* destroyed by the Curculio; peach trees are not loaded with fruit so abundantly as they are in some seasons, but have quite a sufficient quantity, and will from this cause be much larger, and perhaps better flavoured.

Grapes—The early part of the season has been too wet for them, and the wood not ripening well last season, many varieties were much injured in the winter, but the present *hot* weather is recovering them surprisingly, they will bring a small crop, many of the foreign varieties are again (as usual) much injured by mildew.

Columbia, July 29th, 1830. J. B. G.

Origin of the Isabella.—The "*Isabella*," as it is called, is a very excellent Grape, judging by the few specimens I have seen, and you would much oblige me and others, by stating, in the New-York Farmer, its origin and history, so far as known. Some call it a Native American, and some claim for it a foreign origin. Pray, what is the fact? In return for this favor,

I will endeavour to contribute something for your paper, toward the same object, tracing the history of some of our best known varieties of the Vine. No matter for a display of your learning, Mr. Editor, in Botanical Technology; speak in plain English, as I will do, so that readers may understand without the aid of a dictionary.

If an opportunity offer, I intend to send, with this note, a basket of my Grapes, about 30 varieties, ripening from early in August to the middle of September, of which you will judge, and publish the result, but without naming me, as I dislike puffing. You will merely describe each kind, as to color, size, quality, &c., and I will then give you their names and history.

Sept. 23, 1830. S.

Remarks.—The above was received Oct. 30th unaccompanied by the grapes. They will be very acceptable next year. Mr. Prince, who is well qualified, will, we trust, give an answer to the above.—*Ed.*

Lonicera hirsuta.—Professor Eaton says in a note to the 5th edition of his *Manual of Botany*, "I published this species in the *Manual* in the year 1818, and repeated it in the succeeding editions. Afterwards, *Goldie* came to this state, and also travelled in Canada, where he found it and examined it with my *Manual*.

"In 1822 he published it as a new discovery, under the name of *pubescens* in the Edinburgh Phil. Journal. I do not claim the discovery, for since I published it, I learned that *Le Conte* had examined it. But the truth should be told."

From this note we learn two things: 1st. That *Goldie* unfairly and unhandsomely claimed a discovery which he knew at that time had been made by another. 2nd. That Professor Eaton seems to have forgotten the rule which ought to govern botanists on these occasions. He that first publishes the name and character of a plant *(having honestly acquired it)* is entitled to the honour of discovery. It does not appear that *Le Conte* ever published the specific character, and of course can have no better claim than the writer of this note who examined it in the year 1816, and published a brief notice three years before Goldie came to the country. *But Professor Eaton is entitled to the discovery*, and I regret that I was so long unacquainted with the justness of his claim; however, on reading his note I repaired to the garden and removed the name "*pubescens*" from my labels, writing in its place "*hirsuta*", and I recommend a similar proceeding to all horticulturists who mean to "*do the fair thing*."

Lonicera hirsuta is found in the neighbourhood of Meadville, Pennsylvania, and between Bath and the Crooked Lake in Steuben county, N. Y. T.

Sulphuret of Lime to prevent Mildew.—A reader respectfully solicits information relative to the efficacy of *sulphuret of lime* in preventing the *mildew on grapes*. It may be recollected that in the July number of the New-York Farmer of last year, a detailed account of the mode and success of this application is given by an eminent horticulturist; but there is a great difference in seasons, and in the condition of vines; and that process which may succeed in a dry summer on young and vigorous plants, may totally fail in wet seasons on old vines, which are declining in strength. The writer of this card has been rather unsuccessful in repeating the experiment, but this may be owing to his want of skill, in not applying the liquid at the best time, and in the best quantity.

Correspondents on this subject will confer particular favours by referring to *the weather*, to *the mode of pruning* and to *the age and condition of the vines.*

Common Schools in Connecticut.—At the close of the revolutionary war, in the settlement of the claims of the states, 3,000,000 of acres on the southern shore of lake Erie, fell to Connecticut. In 1795 this tract was sold for 1,200,000 dollars. This sum has been regularly increasing, and now amounts to $1,700,000. The annual dividend is about $70,000, which is appropriated to primary schools. There are 1,600 districts in the state, each of which receives $44. This sum is considerably increased by other funds. Notwithstanding all this assistance it is thought the primary schools of Connecticut have, for the ten or twenty years past, rather deteriorated than progressively improved. Priviliges afforded without expense, and obtained without exertion, are but lightly appreciated.

Horticultural Society at Troy.—We perceive by the Troy papers, that several meetings have been recently held, for the purpose of organizing a Horticultural Society. We hope it will be a vigorous and fruitful branch of the parent stock.

American Institute.—On the 12th inst. the Annual Fair of the American Institute of this city was opened, and continued until the 17th. The articles were numerous, and supposed to be 25 per cent superior workmanship to those exhibited at the preceding Fair.—Among the articles we particularly noticed, were rich heavy handkerchiefs of *American* raw silk by Mr. John Morrison of this city; sewing silk from Manchester Ct.; cocoons and silk from Miss. Jones of Long Island, from Staten Island, and from other places; silk plush, ribbons, &c., manufactured by J. Mc Rae of New-York. The plush is used in making hats.—These annual exhibitions of the Institute are accomplishing much for the promotion of American Manufactures.

Among the numerous and most respectable authorities, which the Journal of Health gives for the superior healthiness of water over all artificial preparations, is the following of Sir John Floyer.

Good effects of pure Water.—That good and pure *water* has a *balsamic* and healing quality in it, I could give many instances, as well externally in curing of wounds, as internally as ulcers, excoriations, &c. For I once knew a gentleman of plentiful fortune, who by some accident fell to decay, and having a numerous family of small children, whilst the father was a prisoner in the *King's Bench*, his family was reduced almost to want; his wife and children living on little better than *bread* and *water*. But I never saw such a change in six months time, as I did in this unhappy family; for the children that were always ailing, and valetudinary, as *Coughs, King's Evil, &c.*, were recovered to a miracle, looked fresh, well coloured and lusty, their flesh hard and plump. But, I remember, the mother told me, it being a plentiful year of fruit, she gave them often baked *apples* with their coarse bread, which, I think, might very much contribute to their health.

THE SILK WORM.

By Mrs. Sarah J. Hale.

There is no form, upon our earth,
That bears the mighty Maker's seal,
But has some charm—to draw this forth,
We need but hearts to feel.

I saw a fair young girl—her face
Was sweet as dream of cherish'd friend—
Just at the age when childhood's grace
And maiden softness blend.

A silk-worm in her hand she laid,
No fear, nor yet disgust was stirred;
But gaily with her charge she played,
As t'were a nestling bird.

She raised it to her dimpled cheek,
And let it rest and revel there—
O, why for outward beauty seek!
Love makes it favorites fair.

That worm—I should have shrunk, in truth,
To feel the reptile o'er me move;
But loved by innocence and youth,
I deemed it worthy love.

Would we, I thought, the soul imbue,
In early life, with sympathies
For every harmless thing, and view
Such creatures formed to please;

And when with usefulness combined,
Give them our love and gentle care—
O, we might have a world as *kind*
As God has made it *fair!*

There is no form, upon our earth,
That bears the mighty Maker's seal,
But has some charm—to call this forth,
We need but hearts to feel,

Ladies Magazine.

American Cotton in Bengal.—A few years since it would have been thought as ridiculous to speak of carrying goods to Calcutta, as of carrying coals to Newcastle. But we live in a wonderful age. The last Salem Cazette says: "The Rome, of this port, belonging to P. Dodge, Esq. on the outward voyage from which she has just returned, carried there about three hundred bales of American cotton cloths, which it is well understood paid a high profit in Calcutta. The manufacture of cotton has almost ceased in Bengal; and is now confined to the production of a few goods of the coarser kind, their wants being principally supplied from Great Britain. The steam engine allows no competition of human labor. American cottons find a ready market in the island of Madagascar, where they are a favorite article. Many bales have been sent to that quarter by our Salem merchants, who have found their account in it."

American Cottons in Constantinople.—The Rev. Mr. Dwight, in a letter from the great capital of Mahomedanism, writes that American Cottons are in such high repute in that city, that the English send out many of their cotton fabrics with American stamps and marks to make them sell to better advantage. The American System has done what the Russian army did not accomplish, it has made its way into old Byzantium, and will spread round the Euxine, and it has already gone up the Ganges: it is doing more to promote free trade than all the "Free Trade advocates" in the Union.—*Troy Sentinel.*

American Nankins.—At the Fair of the American Institute, in this city, last week, quite a novelty was exhibited in a small sample of Nankins, manufactured by Collet & Smith, at Patterson, and presented by A. B. Walker, of Augusta, Geo. "These pieces," says the Journal of Commerce, "as we happen to know, are of genuine Nankin cotton, grown by the Hon. John Forsyth, from a few seeds obtained by him when in Spain. The material possesses the desideratum of an immoveable colour. We had noticed during the past summer, that an acquaintance wore Nankin of a peculiarly beautiful colour, and we learn now, that it was a part of this first essay, and had been washed at least twenty times, not only without injury, but with a positive increase of brightness. Mr. Forsyth's crop this season, will probably furnish two or three thousand pieces.

Extinguishment of Fires in Chimnies.—A few pinches of flour of sulphur thrown at short intervals upon the coals or wood burning in the fire place, will speedily extinguish the most raging fire in a chimney. A wet cloth should be hung before the fire place.—This method has been effectually tried at the mint in Paris, and has received the sanction and recommendation of D'Arcet, Huzard, Labarraque, Pelletier, Berard, and other reporters. The sulphurous vapor has also the advantage of pervading the crevices and ramifications of the chimney, and completely finishing the combustion. A pound of sulphur has effectually put out, in a few minutes, a fire in a tall chimney, when the flame rose three or four yards above the top.

Lightning Rods.—It is proposed by John Murray, of London, in a recent treatise on atmospherical electricity, that every lightning rod should be composed of four wires, each one-fifth of an inch in thickness, bound together by rings of copper. This compound rod should extend several feet above the highest part of the building, and at the top each wire should branch out at an angle of 45° and end in a point. The rod should be fastened to the building by wooden clamps. At two feet from the ground, it should incline outward and on entering the earth, each wire should branch again, and terminate in a moist situation. In order to preserve the rods from oxidation, he recommends that before they enter the ground they should pass through a cylinder of zinc.

The author supposes that an extensive multiplication of these rods might have an effect of meliorating the climate, and also that in hop fields, if wires of copper were made to project upwards from a sufficient number of the poles, they would operate as a preservation against that dampness which, by weakening the vegetative powers of the plant, invites the attacks of the Aphis or fly, which so often proves destructive.—*Rec. Ency.* 1830.

Large Peach.—Mr. Oliver Arnold brought us a peach this morning, plucked from a tree in his garden in this city, that measured 10 inches round: it was a free-stone.—*Troy Sentinel.*

Watermelon seed..—Dr. Absalom Thompson, of Talbot county, Md. has communicated to the Easton papers, the case of a boy ten or eleven years old, who became delirious and died in convulsions from eating water melon seed.

Strength of Oxen.—Perhaps the most remarkable exhibition at our show, was the enormous strength of a yoke of oxen, owned by Mr. Solomon Whetherbee of this town. The strength and discipline of working oxen had been tried by letting a single yoke draw a waggon load of sand up the hill by Capt. Jarvis's bakery. There were two such loads; one waggon weighed 8100 lbs. and the load 4000 lbs.; and the other waggon 2090 lbs. and the load 4000 lbs. Mr. Wetherbee did not apply in season to have his oxen tried for a premium; but when the competitors had finished, he chained together the two waggons, then putting his oxen to the tongue of the forward waggon, he made them draw the two loads up hill with apparent ease. He stopped them twice on the ascent, and then started them to show the readiness with which they would move the combined burden of 12190 lbs. or about six tons, where others had been trying their strength on but one half the weight.

These oxen are six years old, measure in the girt six feet and a half, or almost that. It is believed that no other oxen in the State have so great strength.—*Concord Mass. Paper.*

Oneida Institute of Science and Industry.—The annual exhibition of this flourishing Seminary took place at Whitesboro' on Wednesday the 15th ult. We had calculated on the pleasure of attending, but were prevented by other engagements. Our readers are no doubt aware of the character of this institution. It aims at affording facilities for acquiring a classical education to indigent, but industrious young men, by giving them an opportunity to pay their expenses of board, &c. by manual labour; thus affording a good and wholesome exercise to the physical frame, fitting them to endure hardship and fatigue, and removing the great hindrance out of the way of honest indigence to the acquisition of learning. This Seminary was established three years and a half ago. Its success has far succeeded the expectations of its founders, and it can no longer be regarded in the light of an experiment. The present number of students is sixty, and this is as many as the buildings erected can accommodate.

The students present an appearance of health and vigor, cheerfulness and elasticity of mind, of elevated, business-like, and manly character, which no system of education of other times has been able to impart; and it may serve to show in some degree the estimation in which the institution is held by the public, when it is understood, on the authority of one of the instructors, that two hundred and fifty formal applications for admission have been rejected since the first of January last, for want of accommodations to receive them. Of the exhibition last Wednesday, we cannot of course, speak from personal knowledge, but if any dependance can be placed on the united testimony of gentlemen of the first intelligence among us, we can have no hesitation in pronouncing this institution on honor to our county and our state. It was an exhibition of talent, rarely equaled, if ever exceeded, in our first literary seminaries, and a rich display of native, unaffected, and impressive elocution.—*Utica Paper.*

Temperance.—We have heard the following facts recently stated. The first occured in our state; the second relates to a town in Maine.

Last fall, in cold weather, just as the flakes of snow began to descend, a miserable man, scantily covered with rags, presented himself to a farmer and wanted work. He had no particular employment for him, and besides, his appearance was against him; he did not want him. The poor fellow begged hard to stay till he could earn a pair of shoes, and pointed to his bare feet to strengthen his cause. The farmer pitied him, and agreed to take him but he must drink no rum, This was a hard condition: but cold and hunger compelled him to assent, and he began his work; though for the first two or three days, he thought he should die. By the time he had earned his shoes, he found out that he was better off without rum; he lived with the temperance man through the winter, and in the spring went home to his wife, his father and his friends, decently clothed, and to all appearance a reformed man.

In one town, of 3000 inhabitants, where, a year or two ago, they used to spend $14,000 a year, for strong drink, last year they only spent 1000. The same people used to raise $1000 for their schools with great difficulty; but this year they voted cheerfully to raise $1500. So much does the temperance of the fathers tend to the intelligence of the children.—*Portsmouth Journal.*

Dangerous Plant among Water-Cresses.—The procumbent water parsnip, Sium nodiflorum, is a dangerous plant of the umbelliferous class, which grows mixed with water-cresses in springs and streams. When not in flower, it so much resembles the latter, that it is with difficulty distinguished except by a botanist. Water-cresses are of a deeper green, and sometimes spotted with brown, and the extremities of the leaves are more round, and especially the last leaves, which are in pairs, larger than the others, and undulated at their edges. The water parsnip, on the contrary, is of a uniform green,; the ends of its leaves are longer and narrower, conical at the extremities, and toothed at the edges. The best method of knowing them well is to examine them in July, when their flowers are expanded, and when they may be thoroughly distinguished from each other.—*Quarterly Journal of Science.*

Vegetable Crystalization.—Various naturalists have taken notice of the appearance of crystals in the internal parts of vegetable tissues; but nothing very explicit and certain has been stated respecting them. M. Turpin has discovered in the cellular tissue of an old trunk of the Cereus Peruvianus, in the garden of plants at Paris where it had been growing one hundred and thirty years, an immense quantity of agglomerations of crystals of oxalate of lime. They are found in the cellular tissue of the pith and bark. They are white, transparent, four-sided prisms, with pyramidal terminations, collected in radiant groups.—*Rev. Ency. Mars*, 1830.

Establishment of a model farm in Greece.—The government has just founded an establishment from which important results may be expected, in favor of a country afflicted by the ravages of war, and still more perhaps by the idle and military habits which have resulted from them. Gregory Palaiologue, one of the young Greeks who has pursued a course of agricultural studies at the institution of Roville, in France, has returned to his country, in order to devote his knowledge, perfected by the management of a large agricultural establishment which had been confided to him in Corsica, to the benefit of his country. He embarked with a considerable provision of instruments, seeds, &c. supplied by the committee at Paris. Capo

D'Istria has placed at his disposal a national domain, situated between the village of Dalamanara and the ruins of the ancient Tirynthus, for the purpose of a model farm. His first care will be the sowing of the grain brought with him, the creation of a nursery, and the tillage of the ground by instruments unknown in that country. Prospects of extensive benefit attach themselves to the institution of Palailogue. It must become a focus of light, which will distribute throughout Greece the knowledge requisite to the successful cultivation of a soil so long watered with human blood. But many years must still elapse before this desirable object can be completed. Europe, in delivering Greece, has not finished its work. Enriched by the arts of peace, is it not our duty to devote a portion of what they have furnished us to enable our brethren of the east to enjoy their benefits?—*Ib.*

African Spinage.—Dear Sir,—I send you, as matter of curiosity, a specimen of a new vegetable, the African spinage or Basella alba of botanists. The seed was obtained from our late minister to Colombia, Gen. Harrison, who brought it, if I mistake not, from South America; although the plant is a native of Africa. It produces, from each root, several stalks or runners of the length of that I send you, which either lie on the ground, or run upon adjacent props; these stalks, and the leaves, which, as you perceive are succulent and tender, are boiled and eaten as the common spinage, to which they are very similar in taste. This vegetable would seem to be particularly adapted to hot and dry seasons and situations, as a few plants in my garden continued in vigorous growth throughout the dryest portions of the present summer.

Respectfully, &c. C. W. Short.

Lexington, Oct. 16.

[The above specimen resembles somewhat a branch of the tomato vine, well supplied with leaves, in length about eleven feet. We have no doubt this new vegetable will prove an acquisition in our climate. The late dry season produced nothing of more luxuriant growth, and we hope to be able to obtain a small quantity of the seed for distribution in the neighbourhood.] *Poulsons's Adv.*

Fertility of the Orange Tree.—We can have no proper conception of the beauty and value of the Orange Tree, which forms in our green-houses a small slow growing shrub, bearing a scanty supply of fruit, and that maturing with great difficulty. In the climates which are congenial to them, they are cultivated in orchards; the trees grow like our largest apple-trees, and the profusion of fruit which they produce is scarcely credible. In the Canary Islands, and particularly at St. Michaels, the spot which supplies this country and Europe with ship loads of them in their season, a single tree has been known to produce, in one crop, as many as 29,000 oranges. Dr. Webster, in his interesting account of the geology of the Canary Islands, states that the usual product of a good tree, in common years, is from 6 to 8,000 oranges; but as instances of uncommon productiveness, he cites the fact, that 26,000 were obtained from one tree, and 29,000 from another. From this Island the usual annual export of oranges is from 50 to 60,000 boxes, and at one season of great abundance, as many as 80-000 boxes were shipped to various parts of Europe and America.—*Mag. of Useful Knowledge.*

Acacia Catechu—This plant affords a drug, formerly supposed to be an earthy substance brought from Japan, and therefore called *terra Japonica*, or Japan earth; afterwards it appeared to be an extract prepared in India, it was supposed till lately, from the juice of the *Mimosa catechu*, by boiling the wood and evaporating the decoction by the heat of the sun.—But the shrub is now ascertained to be an acacia, and is termed *Acacia catechu.* It grows in great abundance in the kingdom of Bahar, and catechu comes to us principally from Bengal and Bombay. It has received the following names: *Acachou; Faufel; Cætchu; Caschu; Catechu; Cadtehu; Cashow; Caitchu; Costjoe; Cachu; Cate; Kaath.* The natives call it *Cutt*, the English who reside there *Cutch.* In its purest state, it is a dry, pulverable substance, outwardly of a reddish colour, internally of shining dark brown, tinged with a reddish hue; in the mouth it discovers considerable adstringency, succeeded by a sweetish mucilaginous taste. It may be advantageously employed for most purposes where an adstringent is indicated; and is particularly useful in alvine fluxes, where astringents are required. Besides this, it is employed also in uterine profluvia, in laxity and debility of the viscera in general; and it is an excellent topical adstringent, when suffered to dissolve leisurely in the mouth, for laxities and ulcerations of the gums, apththous ulcers in the mouth, and similar affections. This extract is the basis of several formulæ in our pharmacopœias, particularly of a tincture: but one of the best forms under which it can be exhibited, is that of simple infusion in warm water, with a proportion of cinnamon, for by this means it is at once freed from its impurities, and improved by the addition of the aromatic.—*Lexicon Medicum.*

Acarois resinifera—The name of a tree which affords the Botany Bay gum.

Gum Acaroides, New-Holland resin, or earthy gum-lac. This is the produce of the tree called *Acarois resinifera*, or resin-bearing Acarois. The tree grows abundantly in New-Holland, near Botany Bay.—The substance under consideration is usually found in the ground near the trees from which it is spontaneously exuded. From some resemblance it bears (though by no means a near one) to the article called *gum-lac*, it has been known as the *earthy gum-lac.*—It is of yellowish, brownish, or yellowish brown color, and sometimes contains roots, sticks, and other foreign substances. It has been distinguished in commerce by the term *Botany bay resin.* They refer its importation into England to the year 1799. An account of its chemical properties was published by Litchtenstein in Crell's Journal, and afterwards by Dr. Thompson, in the fourth volume of his Chemistry, p. 138. It was known to the early navigator, Tasman, and was brought to New-York and presented to Dr. Mitchill many years ago, by some of our navigators. For some time past it has been regarded in Massachusetts as a powerful restorative, or an invigorating medicine in cases of gastric or general debility.

Gum Acaroides is insoluble in water: alcohol or distilled spirits is its proper menstrum. Even in powder its use is improper, as it is not acted upon by the intestinal or alimentary fluids. It is therefore neither administered in substance, infusion, or decoction. It is mostly prescribed in the form of tincture: Tinctura gummi acaroidis. Tincture of New Holland resin.

The proper rule is to make a saturated tincture, of

which *a tea-spoon full* may be given once in three or four hours, according to the circumstances, in milk, jelly, or syrup, water being apt to decompose it.

The plant that produces it is low and small, with long grassy leaves; but the fructification of it shoots out in a singular manner from the centre of the leaves, on a single straight stem, to the height of twelve or fourteen feet. Of this stem, which is strong and light, like some of the reed class, the natives usually make their spears. The resin is generally dug up out of the soil under the tree, not collected from it, and may be that which Tasman calls "gum-lac of the ground." Mr. Boles, surgeon of the Lady Penrhyn, gives a somewhat different account; and as this gentleman appears to have paid considerable attention to the subject, his account may certainly be relied upon. After describing the tree in precisely the same manner as above, he observes, that at the top of the trunk of the tree, long, grassy leaves grow in great abundance.—The gum is found under these leaves in considerable quantities: it commonly exudes in round tears, or drops, from the size of a large pea to that of a marble, and sometimes much larger. These are, by the heat of the sun, frequently so much softened, that they fall on the ground, and in this soft state adhere to whatever they fall upon: hence the gum is frequently found mixed with dirt, wood, the bark of the tree, and various other substances; so that one lump has been seen composed of many small, pure pieces of various sizes, united together, which weighed nearly half a hundred weight. It is produced in such abundandance that one man may collect thirty or forty pounds in the space of a few hours.—*Hooper's Dic.*

Influence of Female Society in promoting Temperance.—Mr. G. B. Smith, who has succeeded Mr. Skinner in the editorship of the American Farmer, makes the following, among other, remarks on intemperance. "Temperance Societies" says he "may do, and indeed have done much towards ameliorating the condition of drunkards,; but we conceive the right society for this business,—and which can do more in a month than all the Temperance Societies in the Union, with all their tributaries can do in an age,—is *Female Society.*"

"Let the ladies resolve to suppress intemperance, and it is done;—and it may be done in something after this manner: Wives will contrive to make their houses and homes the most agreeable places their husbands can find at which to pass their leisure time—then they won't go to the grog shop. Young ladies will cut the acquaintance of all young men of dissipated habits, and they in their turn will cut their acquaintance with the bottle."

Although we have a high opinion of the redeeming influence of good female society, yet we believe it is in general absolutely powerless, in the reformation of drunkards. We believe that those husbands who have broken through all the restraints imposed by female excellence, very far exceed in number those who have been driven to the intoxicating cup by the disagreeableness of their companions. By attributing so much influence to female society, Mr. Smith undoubtedly intended to compliment the female sex, but such an excuse on the part of the gentlemen, for this gross and national vice, should be considered by the ladies as insulting as it is frivolous and groundless.

Encouragement to Cultivators of Fruit.—Mr. Samuel R. Johnson of Charlestown, Mass. has received $51,36, for the produce of a single plum tree in his garden, this season, besides giving away considerable of the fruit to his friends. The tree produces the Bolmar's Washington Plum, and has yielded but little short of $50 per annum for the last three years. St. Michael pears of the finest appearance, have been sold in our market this week for $1, 50 per dozen.—*N. E. Farmer.*

Wool.—The Foreign Quarterly Review has an article on the German Wool Trade, from which we gather the following facts;

From 1814 to 1819, the annual amount of wool imported into England from Germany, increased from 3,595,145 lbs. to 4,557, 938 lbs.; and in 1828 it was no less than 23,110,822 lbs. At the same periods the annual amounts of wool imported into England from N. S. Wales, were 32,971,—7,284, and 1,603,312 lbs. Some of the N. S. W. wool is said to be fully equal to the best from Saxony. Great efforts are now made to improve the breed of sheep in Russia, as well as in Silesia, Bohemia, Poland, &c. Merinos are also spreading into Italy. Spain has lost her credit; many of the best flocks of merinos were driven to France by Napoleon's Generals, and those that remain, have become so degenerate, as not to be worth more than one third as much as the same stock of sheep in Germany. The average weight of a German merino fleece is from 2½ to 3 lbs. The average annual production of wool in England is 111,160,560 lbs.—*Journal of Humanity.*

Salting Butter.—After thoroughly freeing the butter from water and milk, Dr. Anderson recommends the following;

Let two parts of the best common salt, sugar and saltpetre, of each one part, be completely blended togesber by beating, and add one ounce of this mixture to every pound of butter; incorporate it thoroughly in the mass, and close it up for use. It will be necessary, however, to keep butter, thus prepared, for two or three weeks before it is used, otherwise it will not taste well; but, if properly cured according to the hints above given, Dr. A. states, that it will continue so perfectly sweet for three years, as not to be distinguished from newly-made and salted butter. The best butter is that made during the summer; but by adding a certain portion (which experience only can determine) of the juice expressed from the pulp of carrots to the cream previously to churning, winter-made butter will acquire the appearance and flavor of butter that has been churned during the prime part of the summer season.

Remedy for Poisoned Animals.—Raw eggs given to sheep and cattle which have been poisoned by eating laurel or ivy leaves, it is said will effect a speedy cure. Toe dose is one egg for a sheep, four for a cow. They can be administered by simply breaking the shell, and slipping the yolk and as much of the white as practicable, down the animal,s throat.—*Raleigh Register.*

A Diamond Rattle Snake was lately killed in the Cherokee nation, 7 feet 1 inch in length, and 1 foot 1 inch in circumference. The bite of this species is said to be incurable.

Compound Substances.—Simple bodies are rarely met with in nature. Compound bodies occur every where; they form the mass of the globe.